TRANSACTIONS

OF THE

STATE AGRICULTURAL SOCIETY,

WITH REPORTS OF

COUNTY AGRICULTURAL SOCIETIES,

FOR 1850.

PUBLISHED BY ORDER OF THE LEGISLATURE.

J. C. HOLMES,
SECRETARY MICHIGAN STATE AGRICULTURAL SOCIETY.

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1851.

Annual Report of the Michigan State Agricultural Society for 1850.

The Executive Committee of the Michigan State Agricultural Society, herewith transmit for the use of the Legislature, a report and statement of its proceedings.

The second annual fair of this society was held at Ann Arbor, on the 25th, 26th and 27th days of September, 1850. The proceedings of those days will be found in this report; and the committee feel assured that they will well repay an attentive perusal. Particular attention is called to the various essays and statements which were presented on that occasion relative to the improvements in the culture of grains, the management of farms and the raising of stock, fruit, &c., and the reports of the various committees upon articles entered for exhibition.

The proceedings of county societies are also annexed, and will be found interesting, and it is believed, promotive of the general objects of the society. In this connection, the committee take the liberty to urge upon the officers of all county societies to forward their annual reports, with full statements of their proceedings, and any suggestions which may be deemed appropriate, in season for the compilation of the annual report of the State society. From some counties no reports have been received, although fairs have been held. The permanent prosperity and progress of the agricultural interests of the State require unceasing activity, not only in the State, but also in the county organizations, and such will, we confidently hope, be the result.

Measures have been taken to form a Michigan State Agricultural Library and Museum. The annual fairs of our society have been productive of much good, and we are fully convinced that with a little timely and judicious assistance from the State treasury, we will

be enabled to establish an Agricultural Library and Museum, that will prove beneficial to all classes of persons who may visit it.

The executive committee at its annual meeting in December, 1849, appropriated the sum of $2,500 to be paid as premiums at the society's annual fair, held September, 1850. A portion to be paid out in cash—the balance in books, and the purchase of a Diploma and Medal. The Diploma has been procured, also a design for a Medal. The committee in making this appropriation, hoped their petition to your Hon. body, at its last session, would be answered by an additional appropriation for the use of the society, of at least six hundred dollars. But their resource failed. The amount received from the village of Ann Arbor, is about five hundred dollars. The receipts and expenditures of the society for the year will be found upon referring to the report of the treasurer. It is very desirable that the society should possess sufficient means to extend their premium list far beyond its present limits; also to establish a library, museum and reading room, where may be found all the best agricultural works, papers and magazines, models and specimens of agricultural machinery, implements, &c., specimens of agricultural and horticultural products, and general information upon subjects connected with agriculture. In conclusion, the committee would respectfully, but earnestly call the attention of the Legislature, and all interested in the prosperity of the State, to the great and paramount importance of this main producing branch of industry. What the State of Michigan is, she has been made by her agriculturalists. As that interest thrives, so will all be benefitted. It is so closely connected with all other industrial pursuits—upon it all others in so great a degree depend, that the policy of sustaining it to a reasonable degree by legislative aid, seems hardly to admit of a doubt.

The success of the first and second annual fairs of this society, afford abundant cause of congratulation to the friends of agriculture. By the organization of this society, and its rapid increase and present prosperity, a renewed activity and impetus has been given to agricultural pursuits—emulation has been awakened, societies auxiliary to this have sprung up, and prospered in all the well settled counties of the State, and public attention has been universally called to the various improvements made by modern science in the leading and

most reliable employment in which our citizens can be engaged. It is the object of this society to keep alive and increase the interest already felt, and to that end the committee invoke the active co-operation of legislators and constituency.

The executive committee acknowledge with much pleasure, the receipt of many valuable books, donated by the Legislature of this State at its session for 1850; also, valuable reports, addresses, transactions, &c., from the New York State agricultural society, the Essex Institute, Salem, Massachusetts; the American Institute, New York, and the Agricultural society of the State of Maine; also, the Wool-Grower, from the publisher, T. C. Peters, Esq., of Buffalo, N. Y.; the Journal of the New York State agricultural society, published by the society, and edited by its secretary, D. P. Johnson, Esq.; specimens of wool from several gentlemen residing in this State, and specimens of wool from the Kinderhook wool depot, at Kinderhook, New York.

For the Executive Committee.

J. C. HOLMES,
Sec'y Mich. State Ag. Society.

Officers of the Michigan State Agricultural Society, elected September 27, 1849.

On the 27th September, 1849, at 2 P. M., the annual meeting of the society was held at the society's tent, which was erected upon the show ground—Gov. E. Ransom, the President, in the chair.

On motion of Wm. M. Fenton, of Genesee,

Resolved, That the society now proceed to the election of officers for the ensuing year.

Whereupon, the following persons were unanimously elected:

President—EPAPHRODITUS RANSOM, of Kalamazoo.

Recording Secretary—J. C. HOLMES, of Wayne.

Treasurer—JOHN J. ADAM, of Lenawee.

EXECUTIVE COMMITTEE.

Names.	*County.*	*Town.*
Titus Dort,	Wayne,	Dearborn.
John Thomas,	Oakland,	Oxford.
Payne K. Leech,	Macomb,	Utica.
Rowland E. Perry,	Genesee,	Grand Blanc.
Wm. H. Edgar,	Kalamazoo,	Kalamazoo.
F. S. Finley,	Washtenaw,	Ann Arbor.
Joseph Gibbons,	Lenawee,	Adrian.
George Redfield,	Cass,	Adamsville.
Bela Hubbard,	Wayne,	Detroit.
Frederick V. Smith,	Branch,	Coldwater.

VICE PRESIDENTS.

Names.	*County.*	*Town.*
John R. Kellogg,	Allegan,	Allegan.
John Bowne,	Barry,	Hickory Corners
L. H. Merrick,	Berrien,	Niles.
L. Dow Crippin,	Branch,	Coldwater.
Col. Maynard,	Calhoun,	Marengo.

Name.	*County.*	*Town.*
Daniel Jewell,	Cass,	La Grange.
Abel Bingham,	Chippewa,	Saut Ste Marie.
Morris S. Allen,	Clinton,	Dewitt.
Wm. Hammond,	Eaton,	Charlotte.
Jeremiah Smith,	Genesee,	Grand Blanc.
Levi Baxter,	Hillsdale.	Jonesville.
Ephraim B. Danforth,	Ingham,	Lansing.
Rufus R. Cook,	Ionia,	Otisco.
J. G. Cornell,	Jackson,	Concord.
Andrew Y. Moore,	Kalamazoo,	Schoolcraft.
E. F. Chubb,	Kent,	Granville.
David Ingalls,	Lapeer,	Almont.
Edwin Smith,	Lenawee,	Clinton.
George W. Jewett,	Livingston,	Howell.
Michael Dousman,	Mackinac,	Mackinac.
John S. Axford,	Macomb,	Washington.
Alfred G. Bates,	Monroe,	Monroe.
Almerin Whitehead,	Oakland,	Pontiac.
Henry Pennoyer,	Ottawa,	Grand Haven.
Charles Fitzhugh,	Saginaw,	Saginaw.
Duthan Northrop,	St. Clair,	St. Clair.
Edward S. Moore,	St. Joseph,	Three Rivers.
Henry Hunt,	Shiawassee,	Corunna.
Wolcott H. Keeler,	Van Buren,	Keeler.
Horace Welch,	Washtenaw,	Ypsilanti.
Jonathan Shearer,	Wayne,	Plymouth.

CORRESPONDING SECRETARIES.

Name.	*County.*	*Town.*
J. B. Bailey,	Allegan,	Allegan.
Nathan Barlow, Jr.,	Barry,	Hastings.
Wm. Dougherty,	Berrien,	Berrien.
H. H. Smith,	Branch,	Union City.
O. C. Comstock, Jr.,	Calhoun,	Marshall.
George B. Turner,	Cass,	Cassopolis.
Stephen R. Wood,	Chippewa,	Saut Ste Marie.
Samuel M. Scott,	Clinton,	Essex.

Name.	*County.*	*Town.*
Harvey Williams,	Eaton,	Charlotte.
Charles N. Rucker,	Genesee,	Genesee.
George C. Munro,	Hillsdale,	Jonesville.
C. P. Bush,	Ingham,	Lansing.
George W. Germain,	Ionia,	North Plains.
Ira C. Backus,	Jackson,	Jackson.
N. A. Balch,	Kalamazoo,	Kalamazoo.
Henry R. Williams,	Kent,	Grand Rapids.
Jonathan R. White,	Lapeer,	Lapeer.
Richard Kent,	Lenawee,	Adrian.
Enos B. Taylor,	Livingston,	Howell.
Chas. O'Malley,	Mackinac,	Mackinac.
H. Cartter,	Macomb,	Utica.
E. G. Morton,	Monroe,	Monroe.
H. N. Howard,	Oakland,	Pontiac.
Silas G. Harris,	Ottawa,	Grand Haven.
E. N. Davenport,	Saginaw,	Saginaw.
Chas. A. Loomis,	St. Clair,	St. Clair.
Louis A. Leland,	St. Joseph,	Colon.
John B. Bloss,	Shiawassee,	Shiawassee.
Jed H. Simmons,	Van Buren,	Paw Paw.
Mark Norris,	Washtenaw,	Ypsilanti.
Henry Ledyard,	Wayne,	Detroit.

Executive Meeting.

The executive committee held its second annual meetiug at the village of Jackson, on the 19th of December, 1849.

Present—The president, His Excellency Gov. E. Ransom, of Kalamazoo county;

John Thomas, Oakland county;

Wm. H. Edgar, Kalamazoo county;

F. S. Finley, Washtenaw county;

Bela Hubbard, Wayne county;

F. V. Smith, Branch county;

Payne K. Leech, Macomb county;

A. G. Eastman, secretary Lenawee county agricultural society;

M. Shoemaker, secretary Jackson county agricultural society.

The meeting having been called to order by the president, the records of former meetings, together with the secretary's report, were read and approved. The treasurer's report having been read,

On motion of Mr. Smith, of Branch county,

Resolved, That a committee of three be appointed to examine the report of the treasurer.

Messrs. Smith, Hubbard and Edgar were appointed said committee.

On motion of Mr. Hubbard,

Resolved, That a committee of two be appointed to confer with the citizens of Jackson, with regard to holding the society's second annual fair in the village of Jackson.

Messrs. Hubbard and Finley were appointed said committee.

On motion of Mr. Smith,

Resolved, That the president and secretary be a committee to confer with J. W. Brooks, Esq., superintendent of the Michigan central

rail road, with regard to his providing more ample accommodations for the transportation of stock and other articles, also passengers to and from the fair for 1850, than was provided at the first annual fair.

On motion of Mr. Edgar,

Resolved, That the sum of two thousand dollars be appropriated for the payment of premiums to be awarded at the second annual fair.

On motion of Mr. Edgar,

Resolved. That the Secretary be instructed to procure a diploma and medal for the use of the society, to be awarded as premiums; the cost of both not to exceed five hundred dollars.

On motion of Mr. Hubbard,

Resolved, That a committee of four be appointed to prepare and report a list of premiums to be awarded at the annual fair in 1850.

Messrs. Hubbard, Finley, Leech and Holmes were appointed said committee.

On motion of Mr. Smith,

Resolved, That a committee of four be appointed to prepare and report a list of judges to act at the fair of 1850.

Messrs. Smith, Thomas, Edgar and the President were appointed said committee.

On motion of Bela Hubbard,

Resolved, That our legislature be requested to take such legislation as shall appear necessary or expedient for the establishment of a State central agricultural office, with which shall be connected a museum of agricultural products and implements, and an agricultural library, and as soon as practicable, an agricultural college and a model farm.

In support of the above resolution, Mr. H. made the following remarks.

The good beginning which our State has made in the cause of agriculture, leads to the hope that much more may yet be accomplished towards a cause in which she is so vitally interested. I do not advocate "protection;" but if any branch of industry, in our country, demands *aid and encouragement*, it is that of agriculture. The reasons for this are founded on the facts, that agriculture lies at the foundation of every other department of human industry; that,

comprehensively viewed, it is in itself both an art and a science, as well as the mother of arts; that, while agriculture is the main business of our population; the circumstances of the farmer's occupation render peculiarly difficult voluntary association, for intercommunication and mutual advantage, which is made use of by other departments of industry, for the improvement of their art and the increase of profits.

Considered in the light of an experiment, we conceive the benefits of our late fair, held under favorable State auspices, to be universally recognized. May we not now inquire how far we can expediently take advantage of the experience of other States and nations, in the adoption of means for the still further encouragement of our agriculture.

Mr. Colman, late agricultural commissioner to Europe, characterizes the Royal Agricultural Society of England, as one of the most efficient aids to the progress of agriculture. This society, he informs us, was established about 1837, and embraces a large array of the highest rank and talent of the kingdom, and a vast body of farmers, landlords and others interested in agriculture. Its objects comprehend every branch of husbandry and rural economy. It has a central office or building in London, where its secretary resides, and where the council of the society and other members hold weekly and monthly meetings for the management of business, the discussion of agricultural subjects and the reception of agricultural information.

It has begun the establishment of a library and museum. The object of the former is to collect the most valuable publications on subjects connected with agriculture in all its various and kindred branches, including geology, botany, agricultural chemistry, engineering and manufacturing, so far as they are connected with the making of agricultural implements and the great agricultural operations of draining, embanking, irrigation and other important farming processes. The object of its museum is to exhibit specimens of agricultural productions, which are capable of preservation; seeds, plants, grasses, samples of wool, minerals, manures, models and drawings of agricultural implements, and whatever in any way may conduce to the advancement of the science or practice of agriculture.

In giving this brief account of the great agricultural society of England, I would call the attention of those interested in the same *royal* pursuit, to some of the peculiar features, with their attendant advantages, which this institution, together with others to which I shall presently advert, possess beyond those to which our State society thus far limits its action.

The English association, like that of our own State, and some others whose example we have copied, hold at various places in the country, annual fairs or exhibitions of animals and agricultural products and implements, at which premiums are awarded. At these the greatest emulation prevails among all ranks and orders, and the prizes obtained are ever after exhibited with exultation, and become heir-looms, which are bequeathed

"As a rich legacy unto their offspring."

Yet, after all, these annual shows are but secondary among the great operations of the society.

Besides this important institution, various other means are adopted, both in Great Britain and on the continent, for placing agriculture on the most solid basis, and bringing to its development the best intelligence, science and skill of the age.

In Scotland is published a Quarterly Journal of Agriculture, containing the most valuable communications and papers relating to agriculture and its kindred pursuits, all important discoveries and inventions, and all useful information that the intellect of the age furnishes, which has a bearing upon its prosperity and progress. This journal is published under the auspices of the agricultural society of Scotland, and has given tone to the prosperity of that people, which has placed the Scottish farmer at the head of his class, for industry, intelligence and success.

Even poor Ireland is not wanting in similar aids to agricultural advancement. "In the neighborhood of Dublin," says Mr. Colman, "is a botanical garden, comprehending twenty-seven acres, enclosed by a high stone wall, with a beautiful rivulet running through it, with ample and elegant conservatories and greenhouses, and in the highest state of cultivation and embellishment. It is supported partly by private subscription, and partly by donations from the government." These beautiful grounds are freely opened to all classes.

The poorest of the poor may here feast his soul at will, with the richest and varied bounties of that Providence which has clothed a world in beauty, and may here revel in an exhuberance of enjoyment, not more amply purchased by the overflowing wealth of his lordly masters. To the scientific laborer these grounds furnish an extensive collection of all the most valuable and curious native and exotic plants and fruits, which are systematically arranged, and illustrate a course of botanical lectures.

But probably by far the most important aid to the successful progress of agriculture is to be found in the schools of agriculture and agricultural colleges. Such institutions are found, not only in the three kingdoms of Great Britain, but in all the leading countries of Europe, and with these is generally connected a model farm.

At these colleges are delivered courses of lectures, by the most distinguished scientific professors, on subjects of natural science, particularly the applications of chemistry to agriculture. To these we are indebted for some of the most interesting and useful recent publications on this subject, illustrated by the labors, discoveries and conclusions of Chaptal, Leibig, Johnston and others. To these schools also we are now indebted for supplying professors, educated from the young men of our own country, for the newly established professorships of applied chemistry, at the colleges of Yale and Cambridge.

But it is not a learned proficiency in the higher branches of science alone that is sought. The great aim is, to send out into the country, to be spread throughout the land, an army of practical men—young and active men, experienced in every point of the management of a farm, made hardy and handy by a practical exercise of these arts, and with minds enriched and cultivated by the studies of science and a rigid observation of nature, and ardent in the cause to which their lives and best energies are to be devoted. They thus become, in effect, normal schools of agriculture, and their pupils public teachers, giving out to others, less indebted to prudence or fortune, the benefit of their more comprehensive instruction and experience.

Near London, and also near Edinburgh, are excellent institutions of great importance to agriculture, the Veterinary College. Its ob-

ject is "to qualify persons by the study of comparative anatomy and physiology, and by opportunities for witnessing hospital practice and investigating the symptoms and phenomena of disease in the lower animals, to practice veterinary surgery and medicine, and to do what can be done by skill and science for the relief of the sufferings and the care of the maladies of quadrupeds of all kinds." The one near London is supported by subscription, and consists of long ranges of stables, and covered piazzas for exercising the patients in bad weather, a room for lectures and dissections, a museum for anatomical preparations and diseased specimens, a forge, &c., &c. "A thousand pupils have here already received diplomas, aud have gone to the business of their profession in different parts of the kingdom, in the army and in foreign countries."

The great value of such an institution cannot but be evident, when we consider the large amount of property in live stock, the diseases arising often from ill usage, which their "flesh is heir to," and the perfection to which animals may be brought by a proper care and training. It is abominable what risks are run and what losses sustained every day in this country by the ill directed skill or bold quackery of "horse and cow doctors," and how little real information and aid are to be obtained from the numerous and contradictory "recipes" with which our agricultural papers and the "experiences" of half-bred farmers abound, many of them little better than "old wives fables."

All these "aids" to agriculture I would like to see introduced into our own country, and sooner or later into our favored peninsula. Particularly would I recommend the establishment at Detroit, or some point of most easy access, of a *Central Agricultural Office*, similar in character and design to that of the agricultural society of England. Instead of affording an annual exhibition only, this should be open at all seasons of the year, and the materials there collected, consisting of all the best implements, specimens of natural productions, and whatever relates to the agricultural interests of our State, that co-enter into such a museum, should be subject to inspection at leisure, by citizens and managers, and be a source whence immigrants might obtain information to assist them in the novel labors of settlement.

Annual fairs, though of the happiest influence, are but local and temporary, and necessarily do not concentrate the whole array of agricultural information. They subserve their purpose by creating enthusiasm and emulation; but with the jostle of crowds, the briefness of the time allowed, and the frequent difficulty of procuring the best articles for exhibition at the precise period, they afford little opportunity for close study and examination, and are not seen at all by a large portion of the farming population.

In connection with the patent office at Washington, the central museum might be constantly furnished with the most valuable foreign products, plants and seeds for inspection and trial in our state. It is well known that some of the most important products which our country produces are of foreign origin, and the result of importation and experiment. The advantages to be derived from a State agricultural library I need not repeat. Such an establishment can in no other way be made generally useful and accesable than in connection with a fixed central institution. This institution should be under the special charge of the society's secretary, and here the meetings of the executive committee should be held.

In connection, also, with this permanent foundation, might be published a State journal of agriculture, to be under the special patronage of the State society, and perhaps, under its exclusive control. This would prove more than a substitute for any other agricultural periodical, the support of which, is ordinarily precarious, and its existence often ephemeral, and it might also take the place of an annual volume of the transactions of the State society, as is now published by the agricultural society of New York. Such a publication would not be dependent for its support upon the talent of its chance editor alone, or any transient source of popularity; and as it would be placed above pecuniary embarrassment, it should be ample enough to allow the publication of full accounts of all new inventions and improvements, illustrated by drawings, and such portions of new and important treatises and addresses as are particularly interesting to the agriculturists of our State. It should contain, also meteorological tables and observations, made in various parts of the State, as well as many other matters important to science, and either directly or indirectly so to agriculture, which are almost necessarily

excluded from the pages of ordinary farmer's papers. Assuming this high character, the Michigan State Journal of Agriculiure might, in time become, like the Quarterly Journal published by the Agricultural Society of Scotland, a distinguished source of benefits, as well as a pride and ornament to our State.

In association with an institution thus broadly founded, would eventually grow up a school of agriculture, connected with a model farm. It would be desirable that these should be in the vicinity of the society's central office and museum. It should also have a connection with the State university, whose professors would be called upon for lectures in the several branches of natural science; and to the farm should be attached a Botanical garden, to be under the charge of the professor of Botany of the University. I need add nothing to the considerations already suggested, in regard to the benefits proposed from these establishments, more than the single remark, that, in many of the arts of agriculture our people are far behind their neighbors of Britain; such as those of draining, irrigation, the formation of or substitutes for fences, &c., in all of which we are yet to make a great advance. Of these and other points of good agriculture we are comparatively so practicably ignorant, that nothing less than an example under our own eyes will produce the proper stimulus to their trial. Our large farms, whatever their character, are generally managed after one manner; from the large quantity of acres sought to be occupied they are usually but half cultivated, and our marshes and wet lands, which will eventually become among the richest portions of the country, and which abound in our State, are lying waste for want of a proper system of improvement.

Our country, also, abounds in many valuable and beautiful plants, whose properties are little known, and whose qualities might be developed and made extensively useful under the genial influence of cultivation.

These remarks, it will be perceived, are merely suggestive, and by no means cover the whole ground of the reasons which might be urged in favor of the plan of operations proposed. We cannot expect or hope to see all these projects immediately carried out. That must be the result of time and awakened thought, and, perhaps larger means are needed for the accomplishment than our diminished

State coffers are, at present, able to supply. But a *beginning* may be made with comparatively little expense, and it can probably be shown that the institution may be made to pay its own expenses; at the least, we may be assured that the resulting benefits will, in a very short time, more than repay all the pecuniary outlay. Let the central office be established, with the nucleus of a museum and library, and these will not only soon grow to what we need, but the other parts of the system will speedily follow.

The patronage of agriculture in this country, must be left, almost entirely to the States. Little can be expected from the general government, on account of diverse and conflicting sectional interests, and of prevailing opinions connected with the constitutionality or expediency of the mode of operation proposed to be carried into effect. Should, however, a National Bureau of Agriculture be established at Washington, while its operations might greatly assist those of our State society, they would in nothing render the State institutions unnecessary.

We would have Michigan as distinguished for her encouragement of agriculture as she is for her system of education. In the kindred cause of the proper culture of her soil, she has already, by the establishment of a State Society and the holding of a State fair, taken the lead of all the States west of the Alleghanies. It remains for her to place this great interest upon as permanent a basis as that of her common schools, and thus give a great practical illustration of the motto of the late distinguished Judge Buel—"To cultivate the soil and the mind."

I hope these considerations will meet the approval, or at least the consideration of the Executive committee, and that a movement will be made for bringing the subject before the Legislature for such action as they shall deem expedient.

On motion, the resolution of Mr. Hubbard was laid on the table.

At half-past 9 o'clock, P. M., the committee adjourned to Thursday, 20th, at 2 o'clock, P. M.

The committees having completed their reports, the executive committee again convened at 7 o'clock, P. M. of the 20th.

The meeting having been called to order, and reports of committees being called for,

Mr. Smith, from the committee to whom was referred the treasurer's report stated that the committee had examined the report and vouchers, and found them correct.

Mr. Hubbard, from the committee appointed to confer with the citizens of Jackson, reported, that a few of the citizens were very sanguine that a sufficient sum could be raised in the village to defray the local expenses, and that all who should attend the fair could be accommodated. But a majority of the people were of the opinion that the money could not be raised, or the people comfortably accommodated, at that place.

On motion of Mr. Smith,

Resolved, That the Society's second annual fair be held on Wednesday, Thursday and Friday of the last week in September, 1850.

On motion of Mr. Finley,

Resolved, That the annual fair for 1850, be held at the village of Ann Arbor, provided the citizens shall give the executive committee sufficient assurance within one month, that at least one thousand dollars will be raised by the citizens of that place to defray the local expenses, also that all visitors will be comfortobly accommodated during the fair.

On motion of Mr. Finley,

Resolved, That provided the citizens of Ann Arbor do not comply with the foregoing resolution, the fair shall be holden at Detroit, provided the citizens of that city comply with the requirements of said resolution.

On motion of Mr. Hubbard,

Resolved, That Joseph R. Williams, Esq., of Constantine, be invited to deliver the annual address before the society at its annual meeting in September next.

The Executive Committee to the People of Michigan.

The committee appointed to prepare a schedule of premiums for 1850, submitted the following report, which was adopted:

A second time we present you with a list of premiums and regulations for our Annual State Agricultural Fair. But we come no longer with an appeal in behalf of an institution novel to our State, almost without resources, and about to attempt a hitherto untried experiment. Success, beyond our sanguine hopes, has crowned our efforts. The result of our first fair has shown not only of what Michigan is capable, but it has accomplished another great end, by awakening that enthusiasm which elsewhere has produced such magnificent results.

Instead of a premium list of $1,000, the amount has been increased, in the present list, to *two thousand dollars*. To this is added a number of the *Diplomas* of the Society, sparingly awarded, as the highest meed the Society can bestow. As many silver *Medals* are added, occupying only a second place in the award of merit. Instead of money, a considerable part of the premiums consists of agricultural publications, of a suitable character, and which, it is hoped, will disseminate a wider benefit.

As the wish seemed to be general that the next fair should be held at some point more interior than Detroit, the Committee fixed conditionally upon Ann Arbor; and the like privilege will hereafter be extended, it is presumed, from year to year, to such other places as the best interests of the society and of agriculture shall warrant.

We will not enumerate the benefits, both to farmers and artisans, aside from the awards offered, which arise from the public exhibition of their choice productions, whether with the view to a ready and profitable sale, or of making them and their producers more widely and popularly known. The results of our first fair have already shown that these benefits are substantial, and it was the regret of hundreds of the artisans of Detroit and other places, that they

had not sooner known and appreciated the advantage. This ignorance no longer exists. The exhibition is open to productions in every branch of industry. Articles of exhibition, and passengers to and from the fair, will be taken by the railroads at rates not exceeding, at least, half the ordinary charges. Every facility and accommodation will be afforded by the citizens of Ann Arbor, to aid the show, and make the sojourn of visitors agreeable. We trust no further inducements can be required, to call out, on that occasion, a display of the full strength and varied resources of our State.

List of Premiums.

CATTLE.

SHORT HORNS.

Best Bull, three years and over, medal and	$8 00
2d best bull, three years and over,	7 00
3d do do do	5 00
Best two year old bull,	8 00
2d do do Buel's Farmer's Companion and	5 00
3d do do	3 00
Best one year old bull,	3 00
2d do do	2 00
3d do do, Allen on Domestic Animals.	
Best bull calf,	3 00
2d best do	2 00
Best cow, three years and over, medal and	8 00
2d best do do	7 00
3d do do	5 00
Best two year old heifer,	8 00
2d best do do Buel's Farmer's Instructor and	5 00
3d do do	3 00
Best one year old heifer,	3 00
2d best do do	2 00
3d do do Allen on Domestic Animals.	
Best heifer calf,	3 00
2d best do	2 00

DEVONS.

Best bull, three years and over, medal and	8 00
2d best do do	7 00
3d do do	5 00
Best two year old bull,	8 00
2d best do do Buel's Farmer's Companion and	5 00
3d do do	3 00
Best one year old bull,	3 00
2d best do do	2 00

3d best one year old bull, Allen on Domestic Animals.	
Best bull calf,	$3 00
2d best do do	2 00
Best cow, 3 years and over, medal and	8 00
2d best do do	7 00
3d do do	5 00
Best two year old heifer,	8 00
2d best do do Buel's Farmer's Instructor and	5 00
3d do do	3 00
Best one year old heifer,	3 00
2d best do do	2 00
3d do do Allen on Domestic Animals.	
Best heifer calf,	3 00
2d best do	2 00

OTHER IMPROVED BREEDS OF PURE BLOOD.

Best bull, three years and over, medal and	5 00
2d best do do	5 00
Best two year old bull,	5 00
2d best do do Buel's Farmer's Instructor and	3 00
Best one year old bull,	3 00
2d best do do	2 00
Best bull calf,	2 00
2d best do	1 00
Best cow, three years and over, medal and	5 00
2d best do do	5 00
Best two year old heifer,	5 00
2d best do do Buel's Farmer's Instructor and	3 00
Best one year old heifer,	3 00
2d best do do	2 00
Best heifer calf,	2 00
2d best do	1 00

NATIVE AND CROSS BETWEEN IMPROVED AND NATIVE CATTLE.

Best bull three years and over, medal and	5 00
2d best do do	5 00
3d best do do	3 00
Best two year old bull,	4 00
2d best do do	3 00

3d best two year old bull,	$2 00
Best one year old bull,	3 00
2d best do do	2 00
3d do do Allen on Domestic Animals.	
Best bull calf,	2 00
2d best do Buel's Farmer's Companion.	
Best cow three years and over, medal and	5 00
2d best do do	5 00
3d do do	3 00
Best two year old heifer,	4 00
2d best do do	3 00
3d do do	2 00
Best one year old heifer,	3 00
2d best do do	2 00
3d do do Allen on Domestic Animals.	
Best heifer calf,	2 00
2d best do Buel's Farmer's Companion.	

WORKING OXEN OVER FOUR YEARS OLD.

Best yoke, medal and	10 00
Second best yoke,	10 00
Third best yoke,	5 00
Best ten yoke from any one county,	20 00
Second best ten yoke from any one county,	15 00
Third do do do	10 00

STEERS, THREE YEARS OLD.

Best yoke,	10 00
Second best, Buel's Farmer's Companion and	5 00

STEERS, TWO YEARS OLD.

Best yoke,	$6 00	Second best,	4 00

STEERS, ONE YEAR OLD.

Best yoke,	5 00	Second best,	3 00

FAT CATTLE, OVER THREE YEARS OLD.

Best pair fat oxen, medal and	10 00
2d best pair fat oxen,	10 00
3d do do	5 00
Best single ox,	5 00
2d best single ox,	3 00

Best fat cow,	$5 00
2d best do	3 00
3d best do	2 00
Best single steer, three years or under,	5 00
2d best do do	3 00
Best single heifer, three years or under, spayed or not,	5 00

FAT SHEEP.

Best fat sheep,	4 00
2d best,	2 00

3d best, Morell's American Shepherd.

MILCH COWS.

The cow to be kept on grass during the experiment, and for fifteen days previous to each period of trial.

The time of trial from 10th to 20th of June, and from 1st to 20th of September. Statement to be furnished containing:

1st. The age and breed of cow, and time of calving.

2d. The quantity of milk in weight, and also of butter during each period of ten days.

3d. The butter made to be exhibited with the cow at the fair in Ann Arbor, and the statement to be verified by the affidavit of competitor and one other person conversant with the facts.

Best, medal and $8,00; second best, Allen on Domestic Animals and $8 00; third best, $5 00.

HORSES.

CLASS I—FOR ALL WORK.

Best stallion, four years and over, medal and	$8 00
2d do do do	8 00
3d do do do Youatt on the Horse and	3 00
Best brood mare, four years and over, medal and	8 00
2d best do	8 00
3d best do Youatt on the Horse and	3 00

CLASS II—DRAUGHT HORSES.

Best stallion, four years and over, medal and	8 00
2d best do do	8 00
3d best do do	5 00
Best brood mare, four years and over, medal and	8 00
2d best do do	8 00

3d best brood mare, 4 years and over,	$5 00

CLASS III—BLOOD HORSES.

Best stallion, four years and over, medal and	8 00
2d best do do	8 00
3d best do do Coles' Amer. Veterinarian and	4 00
Best brood mare, four years and over, medal and	8 00
2d best do do	8 00
3d best do do Coles' Amer. Veterinarian and	4 00

THREE YEAR OLD STALLIONS AND MARES.

Best stallion, 3 years old,	7 00
2d best do	5 00
3d best do	3 00
Best mare, 3 years old,	7 00
2d best do	5 00
3d best do	3 00

TWO YEAR OLD STALLIONS AND MARES.

Best stallion 2 years old,	3 00
2d best do Youatt on the Horse.	
3d best do	1 00
Best mare 2 years old,	3 00
2d best do Youatt on the Horse.	
3d best do	1 00

ONE YEAR OLD COLTS.

Best stallion 1 year old,	2 00
2d best do Coles' Amer. Veterinarian.	
Best mare 1 year old,	2 00
2d best Coles' Amer. Veterinarian.	

MATCHED HORSES.

Best pair matched horses,	10 00
2d best do	8 00
3d best do	5 00
4th best do	3 00

GELDINGS.

Best gelding,	5 00
2d best, Youatt on the Horse and	3 00
3d best,	3 00
4th best,	2 00

SHEEP.

CLASS I—LONG WOOL.

Best buck over 2 years, medal and	$5 00
2d best do	5 00
3d best do	3 00
Best buck, 2 years or under,	5 00
2d best do	3 00
3d best do	2 00
Best pen 5 ewes, medal and	8 00
2d best do	8 00
3d best do Morrell's American Shepherd and	4 00
Best pen 5 buck lambs,	5 00
2d best do	3 00
Best pen 5 ewe lambs,	5 00
Second do	3 00

CLASS II.—MIDDLE WOOLED.

Best buck, over 2 years, medal and	5 00
Second do	5 00
Third do	3 00
Best buck, 2 years or under,	5 00
2d best do	3 00
Third do	2 00
Best pen 5 ewes, medal and	8 00
Second do	8 00
Third do Morrell's American Shepherd and	4 00
Best pen 5 buck lambs,	5 00
Second do	3 00
Best pen 5 ewe lambs,	5 00
Second do	3 00

This class includes South Downs, Norfolk, Native, &c.

CLASS III.—MERINOS AND THEIR GRADES.

Best buck over 2 years, medal and,	5 00
Second do	5 00
Third do	3 00
Best buck 2 years or under,	5 00
Second do	3 00
Third do	2 00

Best pen 5 ewes, medal and	$8 00
Second do	8 00
Third do Morrell's American Shepherd and	4 00
Best pen 5 buck lambs,	5 00
Second do	3 00
Best pen 5 ewe lambs,	5 00
Second do	3 00

This class includes Merinos, whether pure or mixed blood.

CLASS IV.—SAXONS AND THEIR GRADES.

Best buck over 2 years, medal, and	5 00
Second do	5 00
Third do	3 00
Best buck 2 years or under,	5 00
Second do	3 00
Third do	2 00
Best pen 5 ewes, medal and	8 00
Second do	8 00
Third do Morrell's American Shepherd and	4 00
Best pen 5 buck lambs,	5 00
Second do	3 00
Best pen 5 ewe lambs,	5 00
Second do	3 00

Includes those denominated Saxons, whether pure or mixed blood.

SHEPHERD'S DOG.

Best shepherd's dog, $5 00. Evidence to be furnished of thorough training of the dog, otherwise no premium can be awarded.

SWINE.

LARGE BREED.

Best boar two years old and over,	6 00
Best boar one year old, Allen on Domestic Animals and	4 00
Best boar six months old and under one year,	3 00
Best breeding sow over two years old,	3 00
Best breeding sow one year old, Gaylord and Tucker's American Husbandry and	3 00
Best sow six months old and under one year,	3 00
Best lot of pigs, not less than five nor more than ten months,	5 00
Second best do do do	3 00

SMALL BREED.

Best boar two years old and over,	$6 00
Best boar one year old, Allen on Domestic Animals and	4 00
Best boar six months and under one year,	3 00
Best breeding sow two years old and over,	3 00
Best breeding sow one year old, Gaylord & Tucker's American Husbandry and	3 00
Best breeding sow six months and under one year,	3 00
Best lot of pigs not less than five and under ten months old,	5 00
Second do do do	3 00

GENERAL RULES APPLICABLE TO ANIMALS.

Where there is but one exhibitor, and the animal is not worthy, no premium will be awarded.

POULTRY.

Best lot of Dorkings not less than 3, 1 cock and 2 hens,	3 00
Best lot of Polands do do	3 00
Best lot of large fowls, do do	3 00
Best lot of turkies, not less than three,	3 00
Best lot of ducks, do	3 00
Best lot of Guinea hens,	2 00
Best pair of geese, Cook's American Poultry Book and	1 00
Best pair of wild geese,	2 00
Best lot of poultry owned by exhibitor (statement to be furnished and verified,) Bement's Am. Poulter's Companion and	4 00
Best exhibition of pigeons,	2 00

FARM IMPLEMENTS.

Best plow for general purposes, diploma and	5 00
Best plow for stiff soils,	5 00
Best plow for light sandy soils,	5 00
Best steel plow,	5 00
Best subsoil plow,	5 00
Best side-hill plow,	5 00
Best roller for general use, Brown's Trees of America.	
Best farm wagon, diploma and	5 00
Best harrow,	5 00
Best corn cultivator,	3 00

Best cultivator for general use, 1 vol. of Downing's Hort. and	$3 00
Best fanning mill,	5 00
Best corn stalk cutter,	3 00
Best straw cutter,	3 00
Best corn and cob crusher,	3 00
Best horse cart for farms,	5 00
Best ox cart, Brown's Trees of America and	5 00
Best horse rake,	3 00
Best ox yoke,	2 00
Best wagon harness for farm,	5 00
Best carriage harness,	5 00
Best dozen axes,	3 00
Best churn, Transactions for 1849.	
Best grain cradle,	2 00
Best six hand rakes,	2 00
Best six hay forks,	2 00
Best six grass scythes,	3 00
Best six cradle scythes,	3 00
Best six manure forks,	2 00
Best hay rigging, Gardner's Farmers' Dictionary.	
Best twelve corn brooms, 7th volume Mich. Farmer.	
Best horse power for general purposes,	10 00
Best threshing machine,	10 00
Best wheat drill, Brown's Trees of America.	
Best wheat cultivator and drill combined,	5 00
Best wheat cultivator,	5 00
Best corn sheller, horse power,	5 00
Best corn sheller, hand power,	3 00
Best vegetable cutter,	3 00
Best and most numerous collection of Agricultural Implements, manufactured in the State of Michigan, by or under the supervision of the exhibitor,	10 00
Best and most numerous collection of Agricultural Implements, without regard to the place of Manufacture,	10 00

PLOWING MATCH—WITH HORSES.

First premium,	10 00
2d do Gardner's Farmer's Dictionary and	7 00

3d premium, $5 00

PLOWING MATCH—WITH OXEN, SINGLE TEAMS.

First premium,		10 00
2d do	Gardner's Farmer's Dictionary and	7 00
3d do		5 00

BOYS UNDER 18 YEARS OF AGE, WITH HORSES OR OXEN.

First premium, medal and	3 00
2d do	3 00
3d do	2 00

BUTTER.

Best lot (quality as well as quantity considered,) made from two cows in 30 consecutive days, 15 lbs. of the butter to be exhibited,	7 00
Second best do do do	5 00
Third best, Webster's Encyclopœdia of Domestic Economy.	
Best ten pounds butter made in June, Transactions for 1849 and	1 00
Second best do do	2 00
Best 15 pounds made any time, Transactions and	1 00
Second best do do	2 00
Third best do do 7th Vol. Michigan Farmer.	

The exhibitors must state in writing the time when the butter was made; the number of cows kept on the farm; the mode of keeping; the treatment of the cream and milk before churning, winter and summer; the method of freeing the butter from the milk; the quantity and kind of salt used, and whether saltpetre or any other substance has been employed.

CHEESE.

Best, one year old and over, not less than 25 lbs.,	$5 00
Second best, Webster's Encyclopœdia of Domestic Economy.	
Third do	2 00
Best, less than one year old, not less than 25 lbs.,	5 00
Second best, Webster's Encyclopœdia of Domestic Economy.	
Third do	2 00

A statement of the manner of making cheese must accompany each sample.

SUGAR.

Best 5 lbs. maple sugar,	$5 00
Second best, do	3 00
Third do do 7th volume Michigan Farmer.	

The process of manufacturing and clarifying must accompany the sample offered.

HONEY AND BEE HIVES.

Best 10 pounds of honey,	$3 00
2d best do do	2 00
3d do do 7th Vol. Mich. Farmer.	
Best bee hive,	3 00

The honey must be taken up without destroying the bees; the kind of hive to be specified.

DOMESTIC MANUFACTURES.

Best pair woolen blankets,	$4 00
2d do do Transactions for 1849.	
Best 10 yards of flannel,	4 00
2d do do	3 00
Best 10 yards woolen cloth,	4 00
2d do do Transactions for 1849.	
Best 10 yards woolen carpet,	5 00
2d do do	3 00
3d do do	2 00
Best hearth rug,	3 00
2d do do Transactions for 1849.	
3d do do	1 00
Best 10 yards rag carpet,	3 00
2d do do	2 00
3d do do	1 00
Best pair woolen knit stockings, Transactions for 1849.	
2d do do	1 00
Best pair woolen knit socks,	2 00
2d do do	1 00
Best pair woolen knit mittens,	1 00
Best 10 yards tow cloth,	3 00
Best pair cotton knit stockings,	2 00
do do socks,	1 00

Best pair linnen knit stockings,	$2 00

Discretionary premiums will be awarded to articles of merit, not included in the above list.

NEEDLE, SHELL AND WAX WORK, PAINTINGS, DRAWINGS AND DAGUERREOTYPES.

Best ornamental needle work,	$3 00
Best ottoman cover, Downing's Cottage Residences.	
" table cover,	2 00
" group of flowers,	2 00
" variety worsted,	2 00
" fancy chair work with needle, Downing's Cottage Residences.	
" worked collar,	2 00
" woolen shawl,	3 00
2d do	2 00
Best work quilt, other than silk,	3 00
" white quilt,	2 00
" silk quilt,	3 00
" port folio, worked,	2 00
" silk bonnet,	2 00
" straw bonnet,	2 00
" lace cape,	2 00
" two lamp mats,	1 00
" ornamental shell work,	2 00
2d do do	1 00
Best specimen wax flowers,	2 00
2d do do	1 00
Best specimen of animal painting in oil, by Mich. artist,	3 00
" do do water colors, do Dowing's Cottage Residences.	
" specimen of cattle drawing by Michigan artist,	2 00
" specimen daguerreotype,	2 00
2d do do	1 00
Best oil or water color painting, by Mich. artist,	3 00
" specimen statuary,	3 00

Discretionary premiums will be awarded to articles of merit not included in the above list.

CUT FLOWERS.

Greatest variety and quantity of cut flowers,	$3 00

DAHLIAS.

Best and greatest variety, Beck's Botany of the U. S.	
Best 12 dissimilar blooms,	1 00

ROSES.

Best and greatest variety,	2 00
Best 10 dissimilar blooms,	1 00

PHLOXES.

Best six varieties,	2 00
Best and greatest variety indigenous flowers,	2 00
Best collection green house plants, owned by one person,	3 00
Best floral design, 1 vol. Downing's Horticuliturist.	
Second best floral design,	2 00
Best hand boquet, flat,	2 00
Second best hand bequet, flat,	1 00
Best hand boqnet, round, Beck's Botany of the U. S.,	1 00
Second best hand boquet, round,	1 00
Best basket boquet, with handle,	2 00
For the most beautifully arranged basket of flowers,	2 00

FRUIT.

APPLES.

For the greatest and best variety of good table apples, three of each variety, named and labeled, grown by exhibitor, Hovey's Fruits and Fruit Trees, with Colored Plates.	
Second best do do	5 00
Third best do do Thomas Fruit Book and	2 00
Best ten varieties table apples, Downings' col. ed. of Fruits, or	5 00
Second best do 7th vol. Michigan Farmer.	
Best six winter varieties, 1 vol. Hovey's Magazine of Hort. or	3 00
Second best do Downing's Fruit and Frnit Trees.	
For best fall seedling apple for all purposes, with description the history of its origin, &c., ten specimens to be exhibited	4 00
Second best do do 7th vol. Michigan Farmer.	
Best seeding winter apple, ten specimens, with description as above, Colman's Agriculture Tour.	

PEARS.

Best and greatest number of varieties of good pears, named and labelled, grown by exhibitor, Downing's Col'd Fruits or $5 00

Second do 1 vol. Downing's Horticulturist or 3 00

3d best, 2 00

Best collection of Autumn pear, first rate, named and labelled, Landscape Gardening and Architecture, or 3 00

2d best, do, 7th vol. Michigan Farmer.

PEACHES.

Best ten varieties labelled, Downing's Col'd Fruits or 5 00

2d do 1 vol. do Horticulturist or 3 00

Best ten specimens, 3 00

2d do Downing's Fruit and Fruit Trees.

Best seedling variety, six specimens, 3 00

2d do do 7th vol. Mich. Farmer.

PLUMS.

Best collection of plums, six specimens each, 3 00

Best four varieties, six specimens each, 2 00

Best twelve plums, choice variety, Downing's Fruit and Fruit Trees.

Second do do Thomas' Fruit Book.

Best seedling plum with description, 7th volume Mich. Farmer.

NECTARINES AND APRICOTS.

Best and greatest number of good varieties of each fruit, six specimens of each variety, 3 00

Best six specimens of any other good variety, Downing's Fruit and Fruit Trees.

QUINCES.

Best twelve quinces of any good variety, 5 00

Second do do 1 vol. Hovey's Mag. or 3 00

Third do do 7th vol. Mich. Farmer.

GRAPES.

Best and most extensive collection of good native grapes, grown in open air, 5 00

Second do do Allen on the Grape and 2 00

Best dish of native grapes, 2 00

Second do do Allen on the Grape.

WATERMELONS.

Best four specimens of any variety,	$2 00
Second do do 7th vol. Mich. Farmer.	

All fruit offered for premiums must be grown by the exhibitor.

The fruit exhibited, for which premiums are awarded, to be at the disposal of the Executive Committee. Discretionary premiums will be awarded for choice fruits not enumerated.

VEGETABLES.

Six best stalks celery, Soc. Transactions.	
Three best heads cauliflower, Leibig's Agricultural Chemistry.	
Three best heads brocoli,	1 00
Twelve do white table turnips,	1 00
do carrots,	1 00
do table beets,	1 00
do parsnips,	1 00
do onions,	1 00
Three do heads cabbage,	2 00
Second best do Mich. Farmer.	
Twelve do tomatoes,	1 00
Two do purple egg plants,	1 00
Twelve do sweet potatoes,	1 00
Best half peck Lima beans,	1 00
do Windsor beans,	1 00
do bunch double parsley,	1 00
Three best crook neck squashes, Johnson's Ag. Chemistry.	
Best of any other variety for cooking,	1 00
Best and largest pumpkin, Gardner's Farmer's Dictionary.	
Second best do	1 00
Twelve best ears of seed corn,	2 00
Best half peck table potatoes,	2 00
Second do Gaylord and Tucker's Amer. Husbandry.	
Best and greatest variety of vegetables raised by exhibitor,	5 00

Discretionary premiums will be awarded for choice garden products exhibited, not above mentioned.

STOVES.

Best cooking stove for wood fire,	3 00
Second do do	2 00

Best parlor stove for wood fire,	$3 00
Second do do	2 00
Best portable furnace and cauldron for farm use,	3 00

FIELD CROPS.

Best crop of wheat, not less than two acres, medal and	7 00
Second do do do Transactions and	4 00
Best crop of spring wheat, not less than two acres,	8 00
Second do do do do Colman's Tour and	2 00
Best crop of Indian corn, not less than two acres,	8 00
Second best do Downing's Landscape Gardening and	2 00
Best crop of barley, not less than one acre,	8 00
Second best do Leibig's Agricultural Chemistry and	3 00
Best crop of rye, not less than one acre, Colman's Tour.	
Best crop of oats, not less than two acres, Colman's Tour.	
Best crop of potatoes, not less than one acre,	4 00
Best acre broom corn,	3 00
Best crop carrots, not less than a quarter of an acre,	4 00
Best acre clover seed,	4 00
Best sample winter wheat, not less than one bushel,	3 00
Best sample spring wheat do Johnston's Ag. Chemistry.	
Best sample flour from the least quantity of wheat, not less than one barrel,	5 00
Best sample flour (without regard to quantity of wheat used) not less than one barrel,	5 00
Second best sample flour do do	3 00
Third do do 7th vol. Mich. Farmer.	
Best sample Indian corn, not less than one bushel, Transactions.	
Best sample oats, not less than one bushel, Transactions.	

Full statement of the variety of each of the above named articles the mode of cultivation, also the quantity of wheat used in the manufacture of the flour exhibited, will be required.

ESSAYS.

Best essay on the cultivation of wheat,	15 00
Best essay on the cultivation of Indian corn,	15 00
Best essay on the cultivation of potatoes,	15 00
Best essay on raising sheep,	15 00
Best essay on any other subject connected with agriculture,	15 00

All essays to which premiums are awarded will be considered the property of the society.

FARMS.

For the best cultivated farm in each county in the State, society's diploma.

Persons wishing to enter their farms for premiums, will notify the vice president and recording secretary of the State agricultural society for the county, who, together with one other appointed by the executive committee, will act as judges upon farms for their respective counties.

The committee appointed to prepare a list of judges for the fair to be holden in 1850, submitted the following report, which was adopted, viz:

LIST OF JUDGES.

CATTLE—DURHAMS, HEREFORDS AND GRADES.

Name.	*P. O. Address.*	*County.*
James Dougall,	Amerherstburgh,	Canada West.
C. M. Giddings,	Cleveland,	Ohio.
Linus Cone,	Troy,	Oakland.

DEVONS, AYRSHIRES AND NATIVES.

Charles E. Stuart,	Kalamazoo,	Kalamazoo.
Isaac Askew,	Amherstburgh,	Canada West.
E. P. Beck,	Sheldon,	Wyoming, N. Y.

WORKING OXEN, STEERS AND FAT CATTLE.

Sam'l Bartlett,	Laselle,	Monroe,
Hamilton Rogers,	Dexter,	Washtenaw.
Lewis T. Miller,	Moscow,	Hillsdale.

HORSES.

S. Hemmingway, (Ch.)	Buffalo,	New York.
Andrew L. Hayes,	Marshall,	Calhoun.
William Graves,	Niles,	Berrien.
Geo. W. Howe,	Detroit,	Wayne.

SHEEP.

—— Canfield,	Canfield,	Mahoning, O.
Enos T. Lovell,	Kalamazoo,	Kalamazoo.
Sam'l Mills,	Manchester or Elba,	Washtenaw.

SWINE.

Name.	*P. O. Address.*	*County.*
Chas. Blair,	Tipton,	Washtenaw,
E. F. Chubb,	Granville,	Kent,
Johu Chamberlain,	Pontiac,	Oakland.

PLOWS AND PLOWING.

Justus Goodwin,	Jackson,	Jackson.
Geo. St. John,	Utica,	Macomb.
James Fisk,	Coldwater,	Branch.

FARM IMPLEMENTS.

J. E. Beebe,	Jackson,	Jackson.
H. K. Farrand,	Colon,	St. Joseph.
P. R. Adams,	Tecumseh,	Lenawee,

DOMESTIC MANUFACTURES.

James B. Hunt,	Pontiac,	Oakland.
Anson Cook,	Brooklyn,	Jackson.
Jeremiah Brown,	Battle Creek,	Calhoun.

POULTRY.

Melancton Freeman,	Kalamazoo,	Kalamazoo.
S. Gillett,	Detroit,	Wayne.
John M. Chase,	Ann Arbor,	Washtenaw.

BUTTER, CHEESE, HONEY AND BEE HIVES.

Lorin Maynard,	Marengo,	Calhoun.
Wm. Moore,	Mooreville,	Washtenaw.
A. B. Hadsell,	Pontiac,	Oakland.

NEEDLE, SHELL AND WAX WORK, PAINTINGS, DRAWINGS, DAGUERREOTYPES, &C.

Rev. Geo. Duffield,	Detroit,	Wayne.
Abiel Silver,		Cass.
E. H. Thompson,	Flint,	Genesee.

FRUITS AND FLOWERS.

A. G. Eastman,	Adrian,	Lenawee.
A. C. Hubbard,	Troy,	Oakland.
E. D. Lay,	Ypsilanti,	Washtenaw.
E. C. Noble,	Ann Arbor,	Washtenaw.

VEGETABLES.

Henry Chipman,	Detroit,	Wayne.
Wm. T. Howell,	Hillsdale,	Hillsdale.
Wm. H. Montgomery,		Monroe.

MISCELLANEOUS ARTICLES.

Name.	*P. O. Address.*	*County.*
Doct. O. C. Comstock,	Marshall,	Calhoun.
Chas. G. Hammond,	Detroit,	Wayne.
A. N. Hart,	Lapeer,	Lapeer.
	FIELD CROPS.	
Joseph R. Williams,	Constantine,	St. Joseph.
A. T. Groendake,	Coldwater,	Branch.
Enos Goodrich,	Grand Blanc,	Genesee.
	ESSAYS.	
Enos T. Throop,	Spring Brook,	Kalamazoo.
K. S. Bingham,	Green Oak,	Livingston.
Doct. Ira C. Backus,	Jackson,	Jackson.

ON FARMS, TO ACT IN CONCERT WITH VICE PRESIDENTS AND CORRESPONDING SECRETARY OF THE RESPECTIVE COUNTIES.

Calvin C. White,	Gun Plains,	Allegan.
Hiram Lewis,	Prairieville,	Barry.
Harvey Haines,	Coldwater,	Branch.
Andrew L. Burke,	Berrien Springs,	Berrien.
Zenas Tillotson,	Marshall,	Calhoun.
Cyrus Bacon,	Edwardsburgh,	Cass,
Samuel Ashman,	Saut Ste Marie,	Chippewa.
Wm. H. Faxon,	Duplaine,	Clinton,
M. S. Brackett,	Bellevue,	Eaton.
David Pearsons,	Flint,	Genesee.
Elias G. Dilla,	Jonesville,	Hillsdale.
—— Medbury,		Ingham,
Cyrus Lovell,	Ionia,	Ionia.
M. Shoemaker,	Jackson,	Jackson.
John Milham,	Kalamazoo,	Kalamazoo.
James Davis,	Grand Rapids,	Kent.
Wm. Hemmenway,	Hadley,	Lapeer.
Walter Wright,	Adrian,	Lenawee.
Richard P. Bush,		Livingston.
Judge Samuel Abbott,	Mackinaw,	Mackinac.
Calvin Pierce,	Utica,	Macomb.
John Burch,	Monroe,	Monroe.
Nathan Power,	Farmington,	Oakland.

Name.	*P. O. Address.*	*County.*
Doct. Timothy Eastman,	Polkton,	Ottawa.
Jas. G. Birney,	Saginaw,	Saginaw.
J. Beard,	Port Huron,	St. Clair.
Wm. Johnson,	Nottawa,	St. Joseph.
—— Martin,		Shiawassee.
J. R. Monroe,	Paw Paw,	Van Buren.
Thos. Wood,	Ann Arbor,	Washtenaw.
A. L. Stevens,	Nankin,	Wayne.

On motion of Mr. Finley,

Resolved, That the resolution of Mr. Hubbard, which was laid on the table, be taken up and referred to a committee of three, who shall be instructed to memorialize the Legislature at its next session, with regard to publishing the transactions of the society; also to appropriate for the use of the soctety the sum of *one thousand dollars* a year for the next five years; also to act upon the resolution offered by Mr. Hubbard.

Messrs. Hubbard, Dort and the Secretary were appointed said committee.

On motion of Mr. Hubbard,

Resolved, That the Recording Secretary be paid the sum of three hundred dollars for his services the past year.

On motion of Mr. Smith,

Resolved, That the Recording Secretary be paid for his services the present year, the sum of five hundred dollars.

On motion of Mr. Hubbard,

Resolved, That Mr. F. S. Finley, of Washtenaw, be appointed chairman *pro tem.* of the Executive Committee, for the year 1850.

On motion of Mr. Hubbard,

Resolved, That the chairman *pro tem.* and the Secretary be authorized to draw upon the treasurer, from time to time, for such sums as may be required to pay for books and stationery, for necessary printing, postage, and such other incidental expenses as shall properly occur in carrying out the objects of the society.

The following rules and regulations, to be observed at the second annual fair, were adopted by the committee:

REGULATIONS FOR THE FAIR.

The Committee on reception of Strangers and Members of Com-

mittees, have their head-quarters at the Franklin House, on the 24th, and until 10 o'clock, A. M., of the 25th of Sept. After that hour, and during the exhibition, at the office on the ground.

A Register will be opened at the room of the Committee, where strangers and members of committees will please enter their names immediately upon their arrival.

Members of the Executive and Viewing committees are requested to report themselves to the Secretary at the committee's room, at the Franklin House, on Tuesday, the 24th Sept., at 7 o'clock, P. M., in order that all vacancies may be filled at a meeting of the Executive Committee, to be holden on the 25th, at 10 o'clock, A. M. at the society's tent, on the show ground.

It is of the utmost importance that committees should be at their post at the hour appointed for their meeting.

Any person may become a member of the Society, for one year, by paying one dollar into the treasury, and then may continue a member by paying 50 cents per annum.

Members of the Society, and all who may become such at the time of the fair, will be furnished with tickets, which will admit the person and his wife, and children under eighteen years of age, to the exhibition, at all times during the continuance of the show.

Single tickets 12½ cents, admitting one person, will be for sale at the business office, on Thursday morning, 26th.

Exhibitors, who intend to compete for premiums, must become members of the society.

Persons wishing to enter their farms for a premium, will give notice to either member of the committee on Farms, in their respective county.

In order to save time and confusion, exhibitors are requested to enter and arrange their articles, as far as convenient, on Tuesday, the 24th, so that all may be in readiness for examination by the judges on Wednesday, 25th, at 3 o'clock, P. M.

Persons employed for the purpose, and wearing appropriate badges, will be in readiness on the ground to receive the articles intended for exhibition, in their several departments.

All articles intended for exhibition must be entered at the business office, at the entrance of the show ground, before entering the en-

closure. Cards will be furnished with the number as entered at the office. Exhibitors will be careful to place their cards upon or near their articles or animals, so that the judges will have no difficulty in finding them. No animals or articles entered for exhibition can be taken from the ground before the close of the fair, except by permission of a member of the Executive committee; and no premium will be paid on animals or articles removed in violation of this rule.

INSTRUCTIONS TO JUDGES.

The judges on animals will have regard to the symmetry, early maturity, size and general characteristics of the breeds which they judge. They will make proper allowances for age, feeding, and other circumstances on the character and condition of the animals. They are expressly required not to give encouragement to over-fed animals. No premiums are to be awarded to bulls, cows, or heifers, which shall appear to have been fattened for the butcher, the object being to have superior animals of this description for breeding.

No person whatever will be allowed to interfere with the judges, during their adjudications. The judges on stock, if not satisfied as to the regularity of the entries in their respective classes, will apply to the Secretary for information; and should there be any doubt, after examination, of their coming within the regulations, or if any animal is of such a character as not to be entitled to exhibition in competition, they will report the facts to the Executive committee, that such course may be adopted as the case may require.

FAT CATTLE.

The judges on fat cattle will give particular attention to the animals submitted to them for examination. It is believed that, all other things being equal, those are the best cattle that have the greatest weight in the smallest superfices. The cattle exhibited in this class will all be weighed, and the judges will take measures to give the superfices of each, and publish the result with their reports.

GENERAL RULES.

When there is but one exhibitor, although he may show several animals in a class or subdivision of a class, only one premium will be awarded; that to be the first or otherwise, as the merits of the animal or article may be adjudged. And a premium will not be

awarded when the animal or article is not worthy, though there be no competition.

No viewing committee, with the exception of the committee on miscellaneous premiums, shall award any discretionary premiums, without the previous permission of the executive committee. Whenever, however, articles of merit, superior in their character, are presented, and which are entitled to special commendation, the judges are desired to notice them particularly, and refer them to the consideration of the executive committee. No animal or article can take more than one premium.

As one great object of the society is to collect valuable information upon subjects connected with agriculture, the several viewing committees are requested to gather all the information possible, from exhibitors in their several departments, and make their reports as full as time and circumstances will permit.

Judges are requested to make their reports to the Secretary, at the business office, by one o'clock P. M., Thursday, 26th.

Stock, to compete for premiums, must be exhibited by the owner or his agent.

Domestic manufactures, needle, shell and wax work, fruits, flowers, vegetables, &c., in order to compete for premiums, must be the productions of the exhibitors.

Persons exhibiting several articles, will, when making their entries, have written lists of their articles, with the name of exhibitor, and place of residence attached, to hand to the book-keepers at the business office.

Exhibitors of stock will, in making out their lists, give all the information possible, concerning their animals.

In the Horticultural department, it is particularly desired that complete memorandums should be rendered.

ORDER OF PROCEEDINGS.

On Wednesday, the 25th of September, the Executive committee will hold a meeting at the Society's tent, on the show ground, at 10 o'clock A. M., for the purpose of filling any vacancies that may occur in the viewing committees.

All members of viewing committees who may be on the ground, will be particular to attend this meeting.

The viewing committees will commence their examinations at 3 o'clock, P. M., of the 25th.

PLOWING MATCH.

The plowing match will take place at half-past 9 o'clock A. M., on Thursday, 26th.

ANNUAL ADDRESS.

The annual address will be delivered by the Hon. Joseph R. Williams, of Constantine, on the show ground, at 2 o'clock, P. M., of the 26th.

REPORTS.

Immediately after the address, the reports of the judges will be read. The judges will be expected to give the reasons for their decisions, embracing the valuable and superior qualities of the animals or articles to which premiums are awarded.

PREMIUMS

Will be forwarded to the persons to whom they are awarded, at as early a day after the fair as practicable.

ANNUAL MEETING.

The annual meeting of the Society for the choice of officers, and for the transaction of such other business as may come before the meeting, will take place at the Society's tent, at 10 o'clock A. M., of the 27th.

SALE OF STOCK AND IMPLEMENTS.

A public sale of stock and agricultural implements will commence at 12 o'clock M., of the 27th.

CONVEYANCE BY RAILROAD.

The directors of the Michigan Central railroad have engaged to convey stock, and other articles intended for exhibition at the fair, over their road at one quarter the usual charge; and persons attending the fair at one half the usual rates.

COUNTY SOCIETIES.

Being auxiliary to the State Agricultural Society, are each requested to send three delegates to the fair. Also, to transmit to the Recording Secretary of the State Society, their reports, abstracts, &c., as contemplated in Article 8 of the constitution, as soon as practicable after the fall exhibition.

EXHIBITORS.

Persons intending to exhibit stock are requested to notify the Recording Secretary at Detroit, previous to the 1st day of September, that sufficient preparations may be made for their accommodation.

A compliance with this request *does not* supersede the necessity of regularly entering stock at the business office as above.

Persons wishing to forward articles for exhibition will please mark them "*Michigan State Agricultural Society, care Wm. S. Maynard, Esq., Ann Arbor.*"

Adjourned.

Proceedings of the Society's Second Annual Fair.

The society held its second annual exhibition at the village of Ann Arbor, upon the vacant lot adjoining the University grounds. The land enclosed for the purpose measured four hundred by nine hundred and fifty feet. The principal buildings erected within the enclosure were: one for domestic manufactures, dairy products and field crops; one for farm implements; one for fruits, flowers and vegetables; one for fine arts, and one for a committee room. Each of the three first measured forty by one hundred feet; the two latter thirty by forty feet; the horse parade two hundred feet in diameter. The sheep pens, cattle railings, horse railings, &c., were extensive and well arranged.

On Tuesday, the 24th of September, stock and articles for exhibition began to arrive. The rules required all articles for exhibition to be in their respective places and ready for examination by 12 o'clock M. of Wednesday, 25th, but in consequence of a heavy rain during the morning of the 25th, which somewhat retarded the arrival of stock, the examination was postponed until the morning of Thursday, the 26th. At two o'clock of the 26th, a very able address was delivered by the Hon. Joseph R. Williams, of Constantine. Immediately after the address was pronounced, a well contested plowing match took place upon a piece of land a short distance from the show ground.

In consequence of the immense concourse of people present on the morning of the 26th, the viewing committees were unable to complete their examinations and prepare their reports in season to announce the award of premiums on that day.

At ten o'clock, A. M., of Friday, 27th inst., the reports of the viewing committees were read; immediately after which the society held its second annual meeting for the choice of officers and the

transaction of other business, at the committee room upon the show ground.

Previous to the election of officers, the following amendments to the constitution were made, viz:

On motion of Titus Dort, of Wayne county,

Resolved, That in article 7 of the constitution the word "President" be stricken out, and the words "recording secretary" be inserted, so as to read thus: "shall deliver to the recording secretary of the society," &c.

On motion of J. Shearer, of Wayne county,

Resolved, That to article 9 of the constitution the following words be added, viz: "The executive committee may receive their necessary travelling expenses when upon business for the society."

On motion of Chas. G. Hammond, of Detroit,

Resolved, That the following words be added to the above amendment, viz: the several amounts paid to members of the executive committee as traveling expenses, be printed opposite their names in the minutes of the society.

As article 9 of the constitution now stands, it will read as follows:

"Article 9. No officer of this society, except the recording secretary, shall receive compensation for his services. The executive committee shall allow the said secretary such sum for his past and future services as they may deem advisable. The executive committee may receive their necessary traveling expenses when upon business for the society. The several amounts paid to members of the executive committee, as traveling expenses, shall be printed opposite their names in the minutes of the society."

On motion of Mr. Finley, of Washtenaw county,

Resolved, That the society now proceed to the election of officers for the ensuing year.

Gov. E. Ransom being nominated for president, in a short and appropriate address, declined a re-election.

The Hon. James B. Hunt, of Pontiac, then being nominated for President, was unanimously elected.

For recording secretary, J. C. Holmes, of Detroit.

For treasurer, John J. Adam, of Clinton, Lenawee Co.

On motion of Justus Goodwin, of Jackson,

Resolved, That a committee of five be appointed to wait upon the superintendents and directors of the several rail roads in this State, and procure, if possible, the free transportation over their roads of stock and other articles intended for exhibition at the fairs of the Michigan State agricultural society; also the transportation of passengers at one-half the usual charge, beginning two days previous, and continuing two days after the close of the fair.

Committee to act in accordance with the above resolution, Justus Goodwin, Chas. G. Hammond, Wm. Finley, James B. Hunt, J. C. Holmes.

On motion of Chas. G. Hammond,

Resolved, That the thanks of the Michigan State agricultural society be tendered to the Hon. Joseph R. Williams, for the very learned, eloquent and practical address delivered before the society on the 26th inst., and that a copy be requested for publication, in order that its important views may be more extensively known and more deeply pondered.

On motion of Mr. Sackett, of Monroe,

Resovled, That the thanks of the society be presented to the citizens of Ann Arbor, for their hospitaliteis during the fair, and particularly to the ladies, for the interest manifested by them in decorating Floral Hall, and the exquisite taste and ingenuity manifested in rearing the floral structures. Also to Messrs. Wm. S. Maynard, Wm. Finley and F. S. Finley, for their constant and unwearied exertions in assisting in arranging the grounds, and the deep interest they have taken throughout the fair.

Memorial for a State Agricultural College in Michigan.

To the Honorable the Senate and House of Representatives of the State of Michigan:

The undersigned, in behalf of the Executive committee of the State Agricultural Society, respectfully asks your attention to the subject of establishing an agricultural college in this State; which was briefly alluded to in a late memorial from the committee to your honorable body, and upon which we now beg leave to present the following considerations:

Having established successfully a State agricultural society, with its annual fairs, it is hoped, with its central office, museum and library, a great step has been accomplished toward the perfecting of our agricultural system. Still, all this must be looked upon only as a beginning, as means for increasing the interest in, and opening the way to the further improvement, of which the subject is susceptible. The next most important step in this process is the founding of a State agricultural college and model farm. That we may not be thought to be running too rashly into new measures, permit us to lay before you our views of the character and operations of such an institution, its importance to our State and the means for sustaining it.

The day has forever gone by when an enlightened liberal education was deemed useless for a farmer. Agriculture has risen into a science, as well as a laborious art; a science, too, the most comprehensive of all others, and which demands not alone strong hands and bodily labor, but active, vigorous, cultivated intellect. Men of such proportions are fast coming to the rescue, and from their accession agriculture dates its rapid start in improvement, its emergence from established errors, and its largest development of all the elements of success. It is beyond question that the most successful agricultu-

rists of our country are men who, educated to other pursuits, have adopted agriculture from an appreciation of its true character and a knowledge of its true principles. Had they been, *after the old manner*, "bred to the plow," they might have toiled through life with minds little elevated above the clods they turned, and live and died like the plants that stagnate in their own fields.

We do not underrate the value of those daily details of the farmer's occupation which require nothing beyond the most simple intellect, aided by strength and skill, but we do say that the science of learned minds alone has raised agriculture from a merely menial employment to its present rank; and we say farther, that science is destined to raise it as far beyond its present condition as it now is beyond that of the ages when agriculture was the employment of the serf.

The truth of this position could be easily demonstrated by reference to the character and origin of the improvements which have taken place in agriculture. What is the modern plow but an implement formed on the most perfect principles of mathmatical science? Let him who doubts, or desires to be convinced, compare its best samples and the work they perform, with the implements in use among rude nations; as simple, cumbersome and inefficient as its owners are ignorant, degraded and poor. Look at the many instances of the most barren and seemingly worthless spots—a sand hill or a swamp—converted into the most fertile and profitable farms, all by the application of improved scientific principles, the underdrain, the sub-soil plow and changes in the chemical and geological character of the soil, by application or conversion of the necessary constituents.

It will be apparent from even these instances, that the mental culture necessary to the perfecting of agricultural improvement, is not merely an acquaintance with the ordinary routine of the farmer's business, nor is it a love for, and willingness to apply experimental or novel methods; it is rather a knowledge of those fundamental laws of science upon which every improvement is based, whether it be the result of study or accident. This kind of education not only stores the mind with knowledge, but renders it observant and inquiring, capable of judging as well as applying, and of drawing conclu-

sions for itself. This is the truly real and most important advantage of a liberal education, and is the basis, if not of all success, at least of all progress. No matter what be a man's business, the more varied his education the better, as he thus enlarges the sphere of his mind, and multiplies the sources upon which he can draw through life, both for profit and enjoyment. But above all, an education which shall include the natural sciences, is especially important to the farmer, as in addition to their other applications, they are the foundation of agriculture.

Considered as an art, the agriculturist has much to learn in his occupation which requires close practical study. There is a bad way as well as well as a good and best way of performing such common operations as plowing, planting, harvesting, the disposition of fields, rotation of crops, fencing, the management of cattle, and numerous other practices necessary or useful to husbandry. The professional man and merchant have their colleges, their schools, their lecture rooms, their exchange, where each may instruct himself, both in the necessary fundamental knowledge and in the best methods of its application. There is, besides, at these resorts, a contest of mind with mind, which sharpens the judgment and arouses all the faculties. But the "breeding" of the farmer seldom admits him to any such advantages. He practices what he has learned from those in whose companionship he may happen to be placed. Thus he becomes fixed and obstinate in early habits. He has little opportunity and less inclination to adopt the ways of others.

Shall these advantages pertain to professions of secondary importance, and the farmer—the one upon whose prosperity all others are dependent—be left with none, or with such only as chance affords?

Having remarked generally upon the advantages of learning to the farmer, let us reflect a moment on the importance to our State of a class of men thus highly educated and devoting themselves to its most important field of labor and usefulness. Would it not elevate our State in the respect and honor of the world? Would it not raise the standard of education in all classes and pursuits? Would it not lean to the better improvement and resuscitation of our soils, and the making profitable of those now useless, and thus augment wonderfully our sources of wealth? Would it not add to the dignity of

the farmer's occupation, and give him a deservedly larger share of influence in our legislative halls and our public councils and concerns? We merely suggest these questions, leaving them to be answered by every reflecting mind.

It seems, then, to us, only necessary to inquire what would be the character and scope of an institution which should be attended with such important results, and whether such an institution is practicable in the present condition of our State.

In this examination, the first and most important consideration is, that the institution would be a LABOR SCHOOL, in which the actual work performed by the pupils would be passed to their credit, in the account for their instruction. Thus the expenses would be greatly diminished if not altogether paid. The very act of labor would be a practical application of the precepts taught, and the poor would enjoy equal advantages with the rich.

The institution should be attached to, or form a branch of, the State University, as is contemplated by the charter of that institution, and having the benefit of lectures from the professors, and such other sources as may be expedient, resident professors, with expensive salaries would not be necessary.

There should belong to the institution, a FARM of sufficient capacity to embrace a variety of soil and surface, upon which all the operations of agriculture, connected with tillage, the culture of all the useful grains, grasses and roots, the raising of stock, &c., could be conducted to the best advantage, and where the operations of draining and the treatment of different soils, could be thoroughly exhibited—in fact, a farm which, under the superintendence of p actical and scientific masters, should become a MODEL for the farms of our State.

There should also be attached a botanical garden, to be under the charge of the professor of botany of the University, in which should be cultivated specimens of the trees, shrubs and plants indigenous to our State, as well as all plants and weeds, a knowledge of the properties and habits of which is useful to the farmer.

The studies taught at this college, should be of an eminently practical kind. Besides agriculture in its details, mathematics and the keeping of accounts, mechanics, natural philosophy and the natural

sciences, with their applications to agriculture. With these could be profitably associated anatomy, so far as connected with the structure and diseases of animals, and the study of insects and their habits, and, to some extent, engineering, architecture, and landscape gardening. Nor should the claims of literature and the fine arts be wholly neglected, as tending to polish the mind and manners, refine the taste, and add greater lustre and dignity to life. In fine, those branches of education which will tend to render agriculture not only a useful, but a learned and liberal profession, and its cultivators not the "bone and sinew" merely, but the ornaments of society.

One prominent advantage possessed by the pupil in such an institution should not be overlooked, in the judicious combination of labor and study; resulting in confirmed health, and thence increased mental as well as bodily vigor.

But the importance of the plan proposed will weigh little, unless it shall be proved to be *practicable.* The only obstacle that can be reasonably supposed to exist, is the expense of founding and conducting such an establishment. In the communities of the old world this obstacle, serious as it is under their circumstances, has been overcome, and with triumphant results. Probably no community in the world possesses greater facilities for the experiment, if it be deemed such, than ours. On the plan suggested, no large endowment is necessary. The connection with the university would furnish a large part of the means for instruction, at comparatively little cost to the institution.

No where, in a settled community, is land so cheap, at the present moment, as in this State. No State is more amply provided with landed and other means for the promotion of education. May not a part of this fund be as legitimately applied to this object as to other plans of educational improvement?

Shall it be said that other collegiate institutions, seminaries and academies find ample support, and an agricultural college fails to do so? Shall farmers—the most numerous, and, collectively, far the most wealthy portion of our citizens—be incompetent to provide for their sons the means necessary to educate them into a position which shall do honor to their fathers, and make themselves and their occupation more respected and useful, while all other professions have

their peculiar institutions, and claim the palm of merit for superior learning? We will not believe that this idea can be admitted by an intelligent farmer in the State.

That diminished expense, as well as increased importance and efficiency would result to an institution of the plan and character described, by being under State patronage and encouragement, appears to us evident.

We cannot conclude this plea without a single reflection upon the motive to mental advancement which the American farmer possesses, besides those common to all classes in this favored land, over the tillers of the soil in other countries. In foreign lands, not only is the poor man almost shut out from acquiring the bare rudiments of education, but, in a majority of cases, he cultivates the land of another, and the profits of his life of toil go to augment the wealth of some titled landlord, whose interest it is to keep him ignorant. Perhaps, in his situation "ignorance is bliss." Here, on the contrary, labor is sure of its reward, and a few years of industry makes the poor but prudent laborer, the proprietor of the soil he cultivates. He rises to the dignity of a free-holder. Of that reward, of that honorable rank, no potentate of this earth can deprive him. How high his privilege!—how honorable his position! Add to it, then, the means of early acquiring those stores of knowledge which, if rightly used, will fit him to hold a place among men of all classes and professions, equal to the wisest and worthiest, and his situation is the most enviable on earth. The realms both of nature and art furnish his patent of true nobility.

If these views be correct, this great end can be attained by means of an agricultural college, and with much less expenditure than usually attends the establishment of institutions of learning. It will place our great leading interest upon a proper corresponding basis, and add another to the prominent advantages which have given Michigan so high a rank in the confederacy, and which she holds out, with pride, as inducements to a residence upon her beautiful peninsula.

BELA HUBBARD,
For Coumitte.

January, 1850.

Abstract from Treasurer's Report for 1850.

CR.

By cash received from balance, Dec. 22, 1849,	$1,109 08
" " " city of Detroit,	28 00
" " " Barrows & Holman,	154 97
" " " State,	400 00
" " " sale of tickets for 1850,	2,617 31
" " for articles sold,	49 75
" " from sale of lumber,	637 15
" " of citizens of Ann Arbor,	483 45
am't received in work and accounts at Ann Arbor, (as cash,)	45 00
	$5,524 71

DR.

To cash paid for diploma, including design, plate, engraving and printing,	$412 00
cash paid salary of secretary for 1849,	300 00
cash paid for books for premiums for 1850,	220 00
cash paid for printing cards, circulars, premium list for 1850, also transportation of lumber, books, &c.,	403 20
cash paid premiums for 1850,	1,165 00
cash paid salary of secretary for 1850,	500 00
cash paid expenses fair at Ann Arbor, as per vouchers,	2,023 39
cash paid A. Sheley on account of lumber,	20 00
cash paid W. R. King on account of crockery,	15 00
cash on hand,	466 12
	$5,524 71

Exhibitors and Articles exhibited.

BULLS.

Loran Downer, Canandaigua, Durham bull, 2 years old.
do do do do 1 do
W. E. Anderson, Ann Arbor, do do 2 do
Wm. H. Edgar, Kalamazoo, Devon bull, "Wallace."
O. B. Blackmar, Moscow, Devon bull, "Gen. Taylor," 3 years old.
Ed. Belknap, Henrietta, Durham do "Comet," 3 do
Stephen W. Palmer, Norvel, do do "Snow Drop," 13 m'ths old.
F. S. Finl y, Ann Arbor, do do "Old Herod," 9 years old.
do do do do "Young Herod," 2 do
O. White, do Grade do 3 do
A. S. Brooks, Novi, Durham do "Cadmus," 6 do
Seth Thompson, Ann Arbor, Grade do 2 do
Benj. Pearson, Flint, Devon and Durham bull, 3 do
Rice & Dingman, Farmington, Durham do 4 do
Allen Hedden, Lodi, Native bull, 16 months old.
W. H. Hanford, Plymouth, Durham bull, 1 year old.
E. Butterworth, Coldwater, Devon do 3 do
C. Redner, Ypsilanti, Durham do
Wirt Dexter, Dexter, Durham bull, "Prince Albert," 3 years old.
Joseph Corbett, Ypsilanti, do do 1 do
Charles Dickey, Marshall, Durham and Devon bull, 3 do
George E. Pomroy, Clinton, Devon do 4 do
Wm. Fuller, Ypsilanti, Durham do
Luman Fuller, Milford, do do 6 do

COWS.

Loan Downer, Canandaigua, Durham cow, 7 years old.
W. E. Anderson, Ann Arbor, Grade Durham cow, 8 years old.

Wm. H. Edgar,	Kalamazoo,	Devon	heifer,	"Flora,"	1	year old.
O. B. Blackmar,	Moscow,	2 do	cow,		3	do
do	do	1 do	do		2	do
do	do	1 Native	do			
do	do	2 cross of Native & D'n h'f'r,			1	do
Isaac B. Gilbert,	Memphis,	Durham	cow,		7	do
do	do	1 cross of D'r'm & D'v'n cow,			6	do
do	do	1 do	do	do do	5	do
do	do	1 do	do	do do	4	do
Edward Belknap,	Henrietta,	Durham	cow,	"Estrile,"	9	do
do	do	do	do	"Bellefleur,"	13 m's	old.
F. S. Finley,	Ann Arbor,	do	do	"Ann,"	9	years old.
do	do	do	do	"Beauty,"	3	do
do	do	do	do	'Red Lady,'	2	do
Philo Parsons,	do	Grade	do		3	do
A. S. Brooks,	Novi,	do	do		3	do
George Tibbets,	Farmington,	Durham	do		7	do
John Tibbets,	Plymouth,	do Grade	do		7	do
David Uhl,	Ypsilanti,	3 Grade	do	5, 6 and	9	do
J. Freeman,	Manchester,	Durham	heifer,		1	do
Amos Mead,	Plymouth,	Native	do		1	do
S. A. Hubbard,	Tipton,	2 Durham	do		1	do
George Williams,	Ann Arbor,	Native	cow.			
Lewis T. Miller,	Moscow,	do	do			
W. H. Handford,	Plymouth,	Durham	heifer,		1	do
F. V. Smith,	Coldwater,	Devon	cow,		7	do
do	do	do	do		6	do
do	do	do	do		5	do
do	do	do	do		3	do
do	do	do	heifer,		1	do
John W. Van Cleve,	Ypsilanti,	Durham	cow,	"Daisy 2d,"	9	y's old.
do	do	Grade	do	"Gentle,"	8	do
do	do	do		"Lily,"	6	do
do	do	Durham	do	'Daisy 3d,"	3	do
do	do	Grade	do	"Letta,"	3	do
do	do	do		"Lily,"	3	do
do	do	do		"Rose,"	3	do

John W. VanCleve, Ypsilanti, ——— cow, "Daisy 4th," 2 y'rs old.
do do Grade do "Cowslip," 2 do
do do Heifer, "Pink," 1 do
John Starkweather, do Grade heifer, 2 do
P. McAlva, Ann Arbor, Native cow.
Wirt Dexter, Dexter, Durham do 5 years old.
Philo Parsons, Pittsfield, heifer, 2 do
H. E. DeGarmo, Ann Arbor, Grade cow.
J. Upton, do heifer, 2 do
D. C. Vickery, Jackson, 3 Grade heifers, 2 do
H. V. D. Begert, Novi, Grade cow, 3 do
Wm. Cong, Plymouth, 2 cows.
Asa H. Otis, Detroit, Native heifer, "Jenna," 2 years old.

CALVES.

Loran Downer, Canandaigua, Durham bull calf, 6 months old.
O. B. Blackmar, Moscow, Devon grade. do 6 do
do do do —— do 5½ do
do do do —— do 5 do
do do do heifer calf, 2 do
Isaac B. Gilbert, Memphis do and Dur. bull c'f. 7 do
F. S. Finley, Ann Arbor, Durham do 5 do
do do do heifer, 2 do
do do do 6 do
do do 2 do Grade heifers 6 do
A. S. Brooks, Novi, Durham bull calf, 4 do
do do Grade heifer, 4 do
John Tibbets, Plymouth, bull calf, 4 do
P. K. Leech, Utica, Devon do 4 do
George Clark, Lapeer, do do 5 do
do do do do 6 do
J. Freeman, Manchester, Durham bull calf, 8 do
John Brewer, Superior, do heifer do 9 do
do do do bull do 9 do
F. V. Smith, Coldwater, 2 Devon bull calves.
do do 2 do heifer do
Wirt Dexter, Dexter, 5 Durham calves.

WORKING OXEN, STEERS AND FAT CATTLE.

W. E. Anderson, Ann Arbor, 1 yoke working oxen, 7 years old.
do do 1 do red steers, 1 do
A. F. Fitch, Mich. Centre, 1 do red twin oxen, 5 do
A. S. Brooks, Novi, 1 yoke mixed blood steers, 1 do
M. L. Shults, Plymouth, 1 yoke steers, 1 do
Jona. Shearer, do 1 do red oxen, 5 do
Edwin A. Platt, Ann Arbor, 1 do do 5 do
Henry Hall, Dexter, 1 do do 5 do
B. Follet, Ypsilanti, 1 do do
Chester Yost, Pittsfield, 1 do do
John Starkweather, Ypsilanti, 1 do red mathed oxen, 6 do
do do 1 do r. & w'te " steers, 3 do
Henry Tibbets, Plymouth, 1 do oxen, 4 do
Philo Parsons, Pittsfield, 1 do steers, 2 do
H. E. DeGarmo, Ann Arbor, 1 Durham steer, 2 do
Justin Kellogg, Pittsfield, 10 yoke working oxen,
J. Burt, Van Buren, 1 do steers, 2 do
C. Wall, Barry, 1 do oxen, 4 do
A. H. Eastman, Barry, 1 do
James Parker, Lodi, 1 do
Joseph Smith, Green Oak, 2 yoke steers.
Putnam Burton, Lyons, 1 do oxen.
Lewis T. Miller, Moscow, 4 steers.
R. Benton, Ypsilanti, 1 yoke steers, 3 y's old.

STALLIONS.

C. Armstrong, Gidley's Station, bay stallion.
Bradley Harrington, Hudson, do "Kentucky Lion," 7 y's old.
Isaac Schram, Grand Blanc, do "Bold Farmer," 7 do
Ira Tappan, Ann Arbor, brown do 2 do
Asa H. Otis, Detroit, do "Old Giant," 4 do
do do do "Old Rifle," 3 do
Chas. M. Merryman, Ecorse, bay do "Duroc," 2 do
O. White, Ann Arbor, do
J. J. Oakley, Plymouth, chestnut do 10 do
George Openo, Milford, bay do 2 do
Avery Shipman, Shiawassee, do "Duroc," 5 do

S. V. R. Trowbridge, Birmingham,	bay	stallion	'Arabian,'	7	yrs. old.
James D. Van Hovenburgh, Jonesville,		do		3	do
F. Kies, Moscow,	bay	do	"Morgan,"	6	do
Moses Rumsey, Trenton,	Chestnut	do	"Mahomet,"	3	do
J. W. McGillvrae, Brooklyn,		do		2	do
Horace Rosier, Dexter,	sorrel	do		5	do
F. A. Williams, Pontiac,	bay	do		2	do
C. S. Goodrich, Ann Arbor,	black	do	"Floriselle."		
M. H. Crane, Albion,		do	"Black Hawk,"	3	do
Gelba Knapp, do		do		2	do
Samuel Lathrop, Plymouth,	bay	do		6	do
Major Ward, Livonia,	chestnut	do		4	do
Chas. Blake, Tipton,		do		3	do
George H. Burch, Pinckney,	bay	do	"Roman,"	8	do
Wm. Teeple, Salem,	chestnut	do	"Young Revenge."		
G. Bird, Brighton,	sorrel	do		3	do
Wm. M. Olcott, Albion,		do	"Oscar,"	8	do
Andrew Y. Moore, Schoolcraft,	blood	do	"Bucephalus,"	7	do
G. M. B. Renwick, Salem,	white	do	"J. Messinger."		
John Sigler, Pinckney,	bay	do		2	do
D. Kellogg, Pittsfield,		do		2	do
Isaac Dunn, Ann Arbor,		do		3	do
do do		do		2	do
Lyman Bullard, Lyons,		do		3	do
Abraham Newman, Northfield,		do		3	do
E. Eddy, Lodi,		do		2	do
A. Gardner, Lodi,		do	'Y'ng Morgan,'	8	do
A. B. Peterson, Dexter,		do	'Brag Trotter,'	11	do
J. H. Van Riper "		do	'Y'ng br'g do	2	do
Justin Kellogg, Pittsfield,	grey	do		2	do
M. Tuttle, Ypsilanti,	chestnut	do		3	do
Chas. Dickey, Marshall,	bay	do		11	do
John Pryer, Salem,		do	"Jim Grey,"	2	do
Richman Benton, Ypsilanti,		do	"Y'ng Americ'n,	3	do
Israel Olmstead, "		do		4	do

MARES.

John Tull, Monroe,	sorrel	mare,		8	do

C. B. Thompson, Ann Arbor, sorrel mare, 3 yrs. old.
L. Chamberlain, Flat Rock, bay do 7 do
John Case, West Bloomfield, do 2 do
Jona. Shearer, Plymouth, do and colt.
David Meach, " bay do 5 do
James D. Vanhovenburgh, Jonesville, do 4 do
Edwin A. Platt, Ann Arbor, do 2 do
George McKim, Superior, bay do 4 do
G. Drake, Ann Arbor, do and colt, 7 do
George Clark, Lapeer, bay do do 8 do
Wm. Maiden, Redford, do 3 do
Samuel A. Hubbard, Tipton, do and colt.
Elial M. White, Milford, chestnut do
Joseph M. Irish, Franklin, do
Andrew Y. Moore, Schoolcraft, blood do "Jane McClure," 5 do
G. M. B. Renwick, Salem, do and colt.
Wm. Green, Romeo, do 5 do
Amos Hoag, Adrian, bay do 7 do
G. Drake, Lodi, do and colt.
J. Lowry, " do
Luther Green, Farmington, bay do
Rufus Thayer, Plymouth, do and colt.
R. Benton, " do 3 do
S. M. Foster, Ypsilanti, do 3 do
J. L. Swift, Iosco, bay do

SINGLE AND MATCHED HORSES.

J. W. Sage, Memphis, 1 pair matched horses.
W. E. Anderson, Ann Arbor, 1 pair matched horses.
do do do 1 gelding.
George Sedgwick, do 1 pair matched horses.
Edward Moore, do 1 do do
Dan'l Lazalier, Grass Lake, 1 pair bay do
G. Drake, Ann Arbor, 1 pair matched do
C. S. Goodrich, do 1 do black do
Freeman & Delamater, Manchester, 1 pair grey matched horses, 5 years old.
Charles Blair, Tipton, 1 pair bay mares.

S. Orcutt, Hudson,	1	pair cream horses.		
P. F. Spofford, Adrian,	1	do bay mares.		
T. W. Hunt, Lodi,	1	do grey horses,	4	years old.
D. F. Hendry, Marshall,	1	do do	7	do
do do	1	saddle horse,	5	do
F. G. Cole, Monroe,	1	pair horses,	6	do
A. G. Eastman, Adrian,	1	do sorrel horses,	3	do
J. Lowry, Lodi,	1		3	do
E. A. Peltier, Monroe,	1	do do		
D. De Forest, Ann Arbor,	1	do do		
O. Hawkins, do	1	do carriage horses.		
B. Follet, Ypsilanti,	1	do do		
Harvy Bannister, Ann Ar.,	1	do do	5	years old.
Lafayette Allen, do	1	do horses.		
S. G. Ives, Unadilla,	1	do carriage horses.		
Chester Yost, Ypsilanti,	1	do matched do		
Henry Compton, do	1	do do do		
Wm. Fuller, Pittsfield,	1	do do do		
Luman Fuller, Millford,	1	do do bay mares.		
Charles Dickey, Marshall,	1	do do bay horses.		

COLTS.

David Depue, Ann Arbor,	1	stallion colt,	1	year old.
Ezra N. Fairchild, Marion,	1	do		do
Asa Rice, Ypsilanti,	2	do	2	do
James B. Huns, Webster,	1	do	1	do
Mrs. Ryan, Ann Arbor,	1	sorrel		
do do	1	spotted colt.		
Fitch Hill, do	1	colt, 2 years old.		

SHEEP.

George W. Gale, Ypsilanti,	1	French Merino buck,	2	years old.
do do	5	ewes, h'lf F'ch & Span.	1	do
Edward Belknap, Henrietta,	1	Leicester buck, 'Monarch,'	18	m.old.
do do	1	" " lamb,	7	do
A. Cook, Dexter,	4	French and Pauler Merino bucks,	1	year old.
do do	5	Grade Pauler do		lambs.
Jona. Shearer, Plymouth,	5	Leicester fat ewes,	2	years old.
Eben'r Arnold, Dexter,	5	Pauler Merino bucks,	1	do
do do	5	do ewes,	2	do

Wm. Whitfield, Waterford, 2 Southdown bucks, 3 & 5 yrs. old.
do do 1 pen Southdown ewes.
do do 1 do lambs.
T. L. Spafford, Elba, 1 Merino buck, 3 years old.
do do 5 do ewes, 2 & 3 do
do do 5 do buck lambs.
do do 5 do ewe do
do do 1 do buck, 2 years old.
John Brewer, Superior, 1 cross of French and Pauler Merino buck, 1 year old.
John Brewer, do 5 French and Pauler Merino ewes, 1 y'r old.
do do 5 do Spanish do buck lambs.
do do 5 do do do ewe do
John Kirk, Dearborn, 1 Southdown buck, 1 year old.
Samuel A. Hubbard, Tipton, 3 Saxon ewes.
do do 2 Merino do
do do 13 Saxon bucks, 1, & 2 y'rs old.
J. A. Austin, Plymouth, 5 Leicester ewes.
do do 2 fat " sheep, 2 y'rs old.
David M. Uhl, Ypsilanti, 3 Merino bucks, 1 2 & 3 y'rs old.
do do 5 do ewes.
A. W. Spofford, Elba, 1 do buck, 5 years old.
do do 1 do do 2 do
D. D. Gillet, Sharon, 1 Saxon do 2 do
do do 1 do do 1 do
do do 1 pen of Saxon buck lambs.
do do 1 do ewe do
do do 1 do ewes.
D. A. Mills, Manchester, 1 Saxon buck, 2 years old.
do do 1 do 1 do
do do 1 pen do lambs.
do do 1 do ewe do
do do 1 do ewes.
Thos. Wood, Saline, 5 Merino ewes.
do do 1 do buck.
I. Lowry, Lodi, 7 do do
do do 6 do ewes.

Wm. S. Maynard, Ann Arbor, 1 Pauler Merino buck.
do do 5 do ewes.
Wm. Taft, Plymouth, 1 fat sheep.
Robert Ferguson, Almont, 10 Spanish Merino bucks.

SHEPHERD'S DOGS.

D. D. Gillet, Sharon, 1 Shepherd's dog.

GOATS.

James Smith, Detroit, 8 Goats.

JACKS.

Elijah Marsh, Pleasant Valley, 2 Jacks.
do do 4 Jenny's.

SWINE.

Wm. McCormick, Ann Arbor, 1 breeding sow, Leicester and Berkshire breed.
Wm. G. Goodwin, Union City, 1 boar pig, 2 months old.

FOREIGN STOCK.

L. F. Allen, Black Rock, N. Y., 1 short horned Durham bull.
do do do 1 do do
do do do 1 do do 1 yr. old.
do do do 3 Durham calves.
do do do 1 Devon bull, 4 years old.
do do do 3 do 1 do
do do do 3 Dev. calves.
do do do 4 Cotswold sheep.
do do do 3 Southdown bucks.
do do do 1 cross Southdown & Cotswold do
Geo. T. Bryant, Sharon, Vt., 20 Merino ewes.
J. D. Patterson, Westfield, N. Y., 4 Merino bucks 1 year old.
M. L. Brooks, West Avon, N. Y., 1 Durham bull 2 do
do do 1 do 15 months old.
do do 3 grade heifers, 1 year old.
do do 4 do calves, 2 months old.
Isaac Askew, Amherstburgh, C. W., 1 Durham bull, 3 years old.
do do 1 grade do calf, 6 mo. old.
do do 1 do Ayshire heifer, 10 do
E. Payne, East Aurora, N. Y., 22 Spanish Merino bucks.
do do 2 Southdown do

E. C. Griffith, Darien, N. Y., 34 Pauler Merino bucks.
C. H. Richmond, Aurora, N. Y., 10 Saxon do

POULTRY.

W. E. Anderson, Ann Arbor, lot of Poland fowls.
Wm. McCormick, do do large do
O. White, do do turkies.
C. S. Goodrich, do do white do
Sam'l Begile, do do Guinea Fowls.
O. L. Warner, do do turkies.
Jacob Perkins, York, 1 pair grey geese.
G. Knapp, Albion, 1 do white do

FARM IMPLEMENTS AND MACHINERY.

E. Chope, Detroit, Lumber waggon.
do do Buggy do
D. O. & W. S. Penfield, Detroit, No. 6, Peekskill Plow.
do do " 5, do
do do " 4, do
do do " 3, do
do do " 2, do
do do " 1, do
do do " 1, Eagle Plow.
do do " 2, do
do do " 2, D. do
do do 1 Sub-soil do
do do 1 Side-hill do
do do Clinton corn-sheller.
do do Lever straw-cutter.
do do Cylindr "
do do " 1, Smut machine.
do do " 1, Buckwheat scourer.
Emery & Co., Albany, New York, 1 Two horse power.
do do 1 Thresher and seperator.
do do 6 Cast-steel manure forks.
do do 6 Pruning saws and chisels.
do do 1 Spiral knife and hay-cutter.
do do 6 Bill hooks.
do do 3 Bush hooks.

Emery & Co., Albany, New York, 1 dozen coach wrenches.
do do ½ " potatoe hooks.
do do 1 " transplanting trowels.
do do 1 water ram in operation.
Wheeler, Mellick & Co., Albany, N. Y., 1 one horse power.
do do 1 two horse power.
do do 1 two horse oversh't thresher and seperator.
do do 1 one horse overshot thresher and seperator.
do do 1 circular saw mill.
Chandler Carter, Manchester, machine for boring and morticing hubs.
V. Chapin, Ann Arbor, saw gammet.
E. O. and A. Crittenden, Ann Arbor, smut machine.
J. T. Wilson, Jackson, corn mill.
do do mill for grinding shell grain.
G. W. Merrill, Birmingham, threshing machine and horse power.
C. H. Seymour, East Bloomfield, N. Y., wheat drill.
T. H. Rogers, Ypsilanti, 4 grain cradles.
Pinney, Connnable & Co., Jackson, 6 scythe snaths.
do do 3 cradles.
do do 10 hay forks.
do do 6 manure forks.
do do 1 cast steel hoe.
E. B. Root, Monroe, 3 cradles.
do do 12 rakes.
S. Stanbraugh, Plymouth, 1 harvest rake.
D. O. & W. S. Penfield, Detroit, 4 hay forks.
do do 4 corn stalk cutters.
do do 1 garden hand-plow.
T. A. Haviland, Ann Arbor, 1 threshing machine.
do do 1 clover do
James Depue, Spring Arbor, 1 harrow.
George M. Bolles, Marshall, 1 grub and stump machine.
Chas. Felt, Schoolcraft, 1 fanning mill.
D. H. Scott, Belleville, 1 cast iron plow.
Chas. B. Lond, Northville, 6 hand rakes.

Seth Hughes, Lodi, lot carpenters' and coopers' tools.
H. M. Roberts, Adrian, 1 two horse buggy wagon.
do do 1 one do do do
S. F. Spafford, do 1 light two horse top buggy wagon.
W. M. Brown, Ypsilanti, 1 straw and fodder cutter.
E. Shepard, Detroit, 1 dairy furnace.
do do 1 agricultnral kettle.
W. C. Chambers, Painesville, Ohio, 1 Buckeye machine.
B. Penfield, Aurora, N. Y., 1 corn sheller.
Aaron Palmer, Brockport, N. Y., 1 wheat drill and corn plow.
Adam Plantz, Detroit, 1 two horse steel plow.
do do 1 one do do
B. Densmore, Brockport, N. Y., 1 straw cutter.
do do 1 corn stalk cutter.
E. Chope, Detroit, 1 lumber wagon.
do do 1 one horse buggy wagon.
J. Simmons, Farmington, 1 plow clevis.
Nathan Lyman, Plymouth, 1 wheel cultivator.
N. Pierce, Lima, 1 buggy rake.
do do 1 horse do
E. L. Freeman, Ann Arbor, 1 meadow renovator.
J. E. Beebee, Jackson, 1 lumber wagon.
Wm. Taft, Plymouth, 1 sett hay rigging.
do do 1 farm wagon.
Emery & Co., Albany, N. Y., 1 thermometer churn.
do do 2 counter scales.
do do ½ doz. pruning shears.
do do 1 sett patent milking machine.
do do 1 fruit ladder.
E. F. Crocker, Niles, 1 horse power.
Edwin A. Platt, Ann Arbor, 1½ doz. corn brooms.
Isaac D. Garlick, Lyons, N. Y., 1 churn driver.
Baldwin & Hubbard, Mt. Clemens, 1 telegraph churn.
J. M. B. Renwick, Riders, 1 cider mill.
J. Blake, Ann Arbor, axe helves.

BUTTER AND CHEESE.

B. Holmes, Ann Arbor, butter in rolls.

O. White, Ann Arbor, butter in rolls.
Hannah C. Begole, Ann Arbor, 10 lbs. butter.
L. Lapham, Farmington, 2 cheese.
W. Gilbert, Wolf Creek, 2 do
J. Griffith, Farmington, 1 do
H. E. DeGarmo, Ann Arbor, 15 lbs. butter made in June.
Caleb Moore, York, 5 cheese.
J. H. Murrey, Farmington, 3 cheese.
Loren Moore, York, 2 cheese of last year's make, and 2 do of this year's make.
Wm. Blackmar, Plymouth, 3 cheese.

SUGAR.

Samuel Fay, Lodi, 1 box maple sugar.
G. W. Collins, Earmington, 1 jar maple sugar.
Aaron Eames, Kalamazoo, 1 box do
Wm. Blackmar, Plymouth, 6 lbs. do
D. Ingalls, Almont, 1 box do

HONEY AND BEE HIVES.

S. D. Noble, Ann Arbor, 3 bee hives.
Jacob Volland, do 1 do
O. L. Warner, do 2 boxes honey.
Seth Hughes, Northville, 2 do
N. Pullman, Niles, 1 bee hive.
George Sutton, Ann Arbor, 1 box honey.
H. W. Griswold, Niles, 1 cap and 2 jars of honey.
J. A. Haviland, Ann Arbor, 2 boxes honey.
E. Peck, Ypsilanti, 1 bee hive, "Colton's improved."

DOMESTIC MANUFACTURES.

Mrs. John Jones, Dearborn, 1 pair woolen blankets.
do do 1 do hose.
Mrs. John Palmer, Detroit, 2 do half-hose.
B. Holmes, Ann Arbor, 1 pair knit cotton hose.
do do 1 woolen half-hose.
F. Harris, do 1 skein worsted yarn.
Mrs. Wm. Cook, Detroit, 3 pair white woolen hose.
T. H. Lyons, Grand Rapids, 1 piece cloth.
Mr. A. L. Stevens, Nankin, 1 do woolen plaid.

Mrs. Maria Warner, Plymouth, 1 pair worsted hose.
do do do 4 sks. worsted yarn. 3 threads.
do do do 1 pair woolen half-hose.
Lydia D. Douglass, Ann Arbor, 10 yards flannel.
Mrs. James Bailey, Big Beaver, 2 pr. woolen hose.
Mrs. W. A. Dennison, Troy, 1 pr. do
D. D. Gillet, Elba, 20 yards rag carpet.
O. L. Warner, Ann Arbor, 36 yards rag carpet.
Chester Yost, Ypsilanti, 1 pr. woolen sheets.
do do 1 do cotton hose.
do do 1 do linen pillow cases.
G. TenBrook, Adrian 10 yards tow cloth.
John Ferrier, Ypsilanti, 1 hearth rug.
T. W. Hunt, Lodi, 1 ps. Flannel.
O. White, Ann Arbor, 15 yards rag carpet.
Mrs. J. F. Roys, do 1 pr. woolen hose.
do do 5 sks. stocking yarn.
C. Cornwell, do 1 ps. black Cassimere.
do do 1 ps. grey do
do do 1 ps. black fulled cloth.
do do 1 ps. grey do
Cyrus Stone. Saline, 3 pr. woolen hose.
do do 15 yds. flannel.
H. E. DeGarmo, Ann Arbor, 1 pr. woolen hose.
Mrs. Isaac. J. Voorhies, Pontiac, 10 yds. rag carpet.
do do do 2 woolen shawls.
G. W. Collins, Farmington, 21 y'ds rag carpet.
do do 2 pr silk stockings.
po do 2 bunches sewing silk.
C. D. Millard, Dexter, 2 pieces Cassimere.
do do 1 " red flannel.
John Lowry, Lodi, 1 " flannel.
do do 1 " linnen towels.
L. Etheredge, Kalamazoo, 4 " Cassimere.
Luther Beecher, Detroit, 3 " floor oil cloth.
do do 3 " Brussells carpet.
do do 3 " Three Ply "

Luther Beecher, Detroit, 2 pcs. two-ply carpets.
do do 7 Wilton rugs.
John Sweet, Redford, 27 y'ds rag carpet.
do do 1 pr buff mittens.
Mrs. R. Comstock, Commerce, 1 p'ce Ingrain carpet.
Misses Sawyer, Grand Blanc, 1 pr silk hose.
do do 1 " linnen "
do do 2 " cotton "
do do 1 " wo'ln "
do do 1 " cotton half-hose.
do do 1 " woolen "
do do 1 " " mittens.
L. Boyden, Ann Arbor, 1 " worsted hose.
Mrs. C. G. Hildt, do 3 " cotton "
Jacob Rolland, do 1 " linnen "
Fitch Hall, do 1 p'ce carpeting.
Miss Sarah E. Owen, Grand Blanc, 1 pr hose.
do do 1 hearth rug.

NEEDLE, SHELL AND WAX WORK, PAINTINGS, DAGURREOTYPES, &C.

Caleb F. Davis, Detroit, design for a diploma for the Michigan State Agricultural Society.
O. Pelton, Boston, Mass., engraving of the diploma for the Michigan State Agricultural Society.
Mrs. Hannah Gardner, Detroit, knit bed spread.
" B. Holmes, Ann Arbor, white wove flute work bed spread.
" Fred'k Hartwick, Clinton, 3 wove bed spreads.
Miss A. Vail, Ann Arbor, 1 white cotton knit bed quilt.
do do 1 crotchet bonnet.
do do 1 white cotton crotchet bonnet.
do do 1 col'd " "
Mrs. A. L. Stephens, Nankin, cotton counterpane.
" Kate A. Van Fossen, Detroit, 1 p'ce worsted work, 'ship at sea.'
Chester Yost, Ypsilanti, 1 wove woolen coverlet.
T. W. Hunt, " 1 woolen birds eye coverlet.
Mrs. J. Brown, Battle Creek, 4 leather fans.
" Apel, Detroit, 1 p'ce worsted work, "Queen Esther pleading before King Ahasuerus for her people."

Miss Emma Dorsch, Detroit, crochet quilt.
do do 1 crochet table cover.
do do boquet of hair work flowers.
do do Tetting collar.
Mrs. Eliza Dorsch, do table cover, worsted work, wrought on canvas.
Miss Mary S. Palmer, Detroit, crochet bag.
Mrs. J. C. Holmes, " "
F. E. Cohen, " painting, cattle piece.
Mrs. F. Harris, Ann Arbor, 1 pr foot stool covers.
do do 1 satchel.
H. Holmes, do 1 pr lamp mats.
Mrs. C. Tyler, do 1 pr worsted work ottomans.
do do 1 embroidered dress.
do do 1 boquet artificial flowers.
Catherine Fletcher, Lodi, 1 pieced quilt.
do do 1 patch work quilt.
Mrs. S. Denton, Ann Arbor, 1 crochet bonnet.
do do 1 " basket.
do co 1 " purse.
do do 1 " mat.
Mrs. Rhodo Fuller, do 1 net shawl.
do do 2 " caps.
do do 1 " collar.
Mrs. J. W. Hellems, Adrian, 1 knit shell work bed spread.
Mrs. Hannah C. Begole, Ann Arbor, 1 pieced quilt.
do do 1 woolen and cotton coverlet.
Miss Martha W. Ladd, do perforated card board portfolio worked with worsted.
Miss Adaline B. Mead, Plymouth, pencil sketches, of the buildings of the University of Michigan.
do do 1 worked collar.
Miss Lydia D. Douglass, Ann Arbor, embroidered work basket.
do do nett shawl.
do do " scarf.
Mrs. D. Webb, do white quilt.
John Brewer, Superior, woolen shawl.

B. Fowle, Moscow, landscape of lake Como.
do do pencil drawings.
Doct. Gunn, Ann Arbor, gentleman's dressing gown.
L. H. Hewitt, Howell, white quilt.
Mrs. Joy, Detroit, nett Tidy.
Mrs. B. Follet, Ypsilanti, 2 worsted coats.
" Mark Norris, do 1 patch work quilt.
W. K. Wheeler, Manchester, 2 oil paintings.
Mrs. J. Starkweather, Ypsilanti, worked muslin shawl.
do do linnen cape, French work.
do do lace " needle work.
do do muslin under h'dk'f.
do do 2 linen pocket k'dk'fs.
do do 3pr cuffs and sleeves.
do do muslin collar.
do do 1 breakfast cap.
do do 4 pair bands and cuffs.
do do 2 do thread stockings.
Henry Bibb, Detroit, 3 crayon drawings.
do do 1 painting.
Mrs. John Maynard, Ann Arbor, 1 lamp mat.
do do 1 nett worsted scarf.
Mrs. W. S. Saunders, do 1 silk cushion.
do do 1 silk quilt.
do do 1 piece shell work.
Mrs. W. B. Prettyman, do 1 crochet bag.
Miss R. Norris, Ypsilanti, 3 crayon landscapes.
Mrs. B. F. Granger, Manchester, 1 cotton quilt.
do do do 1 lamp mat.
J. E. Martin, Detroit, 14 frames of Daguerrotypes.
Mrs. Orrin White, Ann Arbor, 4 worked mourning collars.
Mrs. J. A. Baughman, Detroit, white bed quilt.
Mrs. J. F. Royce, Ann Arbor, 1 piano cover.
do do 2 lamp mats.
do do 1 pr. worked ottoman covers.
do do 1 quilt.

Mrs. Gillman, Detroit, 4 crochet collars.
do do 3 pr. do cuffs.
do do 4 crochet caps.
do do 4 do mats.
do do 1 collar and cuffs.
Henry Gillman, do 5 paintings.
Henry Bibb, do 1 pr. crochet shoes.
do do 1 crochet bag.
Mrs. Jere'h Brown, Battle Creek, 2 drawings.
Mrs. D. E. Hubbard, Ann Arbor, 1 fancy box.
do do 1 pin cushion.
do do 1 watch case.
G. W. Merrick, Adrian, 13 daguerreotypes.
Mrs. Ehle, Ann Arbor, 2 toilet cushions.
Mrs. N. M. Shoff, do 1 embroidered hearth rug.
do do 1 landscape drawing.
Miss H. U. Noble, Ann Arbor, lot of paintings.
Mrs. J. B. Hunt, Pontiac, 1 worked dress hdkf.
do do 1 coverlet.
F. J. Scott, Adrian, drawing for dwelling house.
Mrs. A. C. Hubbard, Detroit, 1 wrought cape.
Mrs. Jacob Hendrickson, Pontiac, 2 straw hats.
S. Graves, Ann Arbor, 2 oil paintings.
do do 3 pencilings.
Mrs. E. M. Whitaker, Ann Arbor, 1 pair raised work ottomans.
do do 1 do lamp mat.
Miss Hannah Gregory, Ann Arbor, 1 vase wax flowers.
Miss Clarissa Doors, Ypsilanti, 1 worked cape.
do do 1 do cap.
Miss M. Hutchinson, Ann Arbor, 3 silk bonnets.
do do 1 bed spread.
Mrs. C. A. Robinson, Northville, 1 woolen coverlet.
do do 1 patch work quilt.
Mrs. E. M. Whitaker, Ann Arbor, 1 boquet wax flowers.
Miss Frances M. Kent, Jackson, 6 embroidered chair seats.
do do 1 covering for piano stools.
do do 1 pair gents' slippers,

Mrs. John Wood, Hartland, 1 ladies' worsted satchel.
J. E. Beebe, Jackson, 1 bed spread.
S. Copeland, St. Clair, monochromatic paintings.
Miss H. U. Noble, Ann Arbor, artificial flowers.
Mrs. Chas. Smith, do 1 bed quilt.
Miss C. M. Taylor, do artificial bunch of grapes.
do do do do plums.
Misses Sawyer, Grand Blanc, 2 embroidered collars.
do do 1 pair worked cuffs.
do do 1 card knit lace.
Mrs. Doct. Douglass, Ann Arbor, 1 pair ottoman covers.
do do 1 toilet cushion.
Mrs. H. Welles, do 1 pair suspenders.
Miss L. Douglass, do 1 crochet lamp mat.
L. Boyden, Webster, 1 bed quilt.
Mrs. G. Kellogg, White Pigeon, 1 white quilt.
M. A. Haviland, Ypsilanti, view of Lake Pusino, in Italy.
do do castle of Rhunstein.
do do tissue paper lamp maps.
L. Wood, Jackson, 1 pieced quilt.
do do 2 bead work bags.
Mrs. T. Blackwood, Ann Arbor, 2 ottomans.
J. Neldrett, do 1 fancy basket.
do do 1 silk velvet pin cushion.
Miss C. Clark, do 2 crochet cape napkins.
Mrs. M. Davis, do 1 black lace veil.
Mrs. J. F. Royce, do table cover.
John L. Brown, Farmington, patch work quilt.
Miss Sarah E. Owen, Grand Blanc, mineral mound with artificial boquet
Miss M. Cellem, Richland, paintings and drawings.

MISCELLANEOUS ARTICLES.

James Bull, Detroit, history of plants, printed 1598.
Mrs. John Palmer, Detroit 1 bottle blackberry shrub.
do do 1 do currant wine, each of the vintage of 1847-8-9.
A. W. Harrison, Philadelphia, Pa., writing ink.

A. W. Harrison, Philadelphia, Pa., indelible ink.
do do hair dye.
D. O. & W. S. Penfield, Detroit, 1 sad iron heater.
Wm. Bostwick, Ypsilanti, 1 water pail.
Wm. Tate, Detroit, 1 case hair work.
Hallock & Raymond, Detroit, 1 silk vest.
do do 1 pair cassimere pants.
do do 1 boys' overcoat.
John W. Hodgkins, do 1 self inflating life preserver.
do do 1 life preserver traveling bag.
do do 1 pair swimming gloves.
S. H. Dimick, Ypsilanti, 1 box perfumery.
J. T. Wilson, Jackson, 1 model bedstead.
Rob't Banks, Detroit, 2 coats.
do do 1 pair pants.
John Hall, Detroit, boot and shoe blacking.
R. Randall, Jr., Clinton, specimens of 100 varieties of grass, indigenous to Michigan.
Wm. Phelps, Detroit, 1 case of confectionery.
Wm. S. Maynard, Ann Arbor, 2 bottles currant wine of the vintage of 1845.
Silas H. Douglass, Ann Arbor, 1 ps stucco.
Wm. S. Maynard, do specimens of indegenous grasses.
Chas. Thayer do 1 bottle currant wine of the vintage of 1844 and 1846.
Thomas Keal, Ann Arbor, 1 rocking chair.
do do 1 table.
do do 1 pair ottomans.
Henry Miller, Detroit, glass jar of tobacco.
do do lot cigars and fancy show card.
Samuel Pettibone, Ann Arbor, model house.
Wm. Clay, Detroit, ladies' and gentlemen's wigs.
Samuel Anderson, Comstock, spring bedstead.
do do bed screw and hand screw.
James Summers, Ann Arbor, 1 Gothic door.
Dean & Godfrey, specimens graining, oak and mahogany.
do specimens of sign painting.

Eagle and Elliott, Detroit, lot of clothing.
H. Krause, Ann Arbor, 6 sides upper leather.
E. Shepard, Detroit, 6 copper tea kettles.
do do 2 brass do
do do 2 do wash basins.
do do 6 copper oil cans.
James S. Alvord, Adrian, 1 pump.
do do 1 bench screw.
L. Baldwin, Detroit, 1 single harness.
Asa H. Otis, do an enormous piece of pork.
C. Cornwell, Ann Arbor, 1 hub morticing machine.
do do 1 hollow auger.
Thos. Hall, Detroit, 14 horse shoes.
do do 4 packages, horse shoe nails.
A. Warden, Ypsilanti, 4 joints stove pipe.
E. S. Ormsby, do 1 seven shooter rifle.
Augustus Day, Detroit, Andrew's hydraulic churn.
do do magic copying press or manifold letter writer.
C. S. Goodrich & Co., Ann Arbor, 2 copper boilers.
do do 1 do tea kettles.
Ladue & Eldred, Detroit, 12 sides harness leather.
do do 1 doz. calf skins.
do do 4 rolls leather belting.
T. K. Adams, Detroit, 1 pair fine calf boots.
do do 1 do pegged thick boots.
do do 1 do do do brogans.
do do 1 do ladies' kid excelsiors.
do do 1 do do village ties.
E. Chope, do 3 horse shoes.
J. Bloynk, do piano forte.
J. Simmons, Farmington, stove pedler's wagon.
Wm. Wilson, Brooklyn, Ohio, specimens fire and weather proof paint.
J. A. Bailey, Detroit, telegraph instruments.
Caleb Lamson, Ypsilanti, pails, tubs, half bushes, churns, wooden bottles, &c.

Benj. Lee, Detroit, lot steam refined molasses candy.
L. C. Rose, do Doct. Banning's body brace.
J. T. Cook, Maysville, Kentucky, 1 box kyanized cordage.
Seth Branick, Detroit, 1 jar candy.
Jabez Fox, do specimens of plain and ornamental printing.
L. S. Sherman, Pontiac, 1 marble grave stone.
L. Fasquelle, Ann Arbor, 1 carved powder horn.
do do 1 do ivory cup.
Shoff & McCracken, Ann Arbor, specimens ornamental printing.
Emery & Co., Albany, specimens india rubber belting.
George Kirby, Detroit, 12 sides sole leather.
Pinney, Connable & Co., Jackson, 1 screw plate.
do do 1 three inch chisel.
O. Hawkins, Ann Arbor, 1 one horse carriage.
P. W. Sage, Ypsilanti, silver plated double harness.
L. S. Noble, Detroit, 3 carriage and 1 riding whip.
G. P. Bennett, Jackson, 3 sett artificial teeth.
Caleb Bacon, Jonesville, 2 bottles wine from native grapes.
Wm. Mead, Ann Arbor, 3 dressed deer skins.
Valentin & Cruwell, Detroit, box jewelry.
J. T. Phillips, Northville, 1 pair coarse pegged boots.
E. M. Lansing, Tecumseh, 1 two horse carriage sprouts patent springs.
W. W. Calkins, Leoni, 1 rockaway carriage.
E. Shepard, Detroit, 1 ps galvanized gutter.
H. Borce, Northville, 1 pair boot lasts.
James Cunningham, Rochester, N. Y., 1 chariot.
do do 1 Jenny Lind hack.
Lanning & Britton, Northville, 1 trotting buggy.
C. S. Goodrich, Jr., & Co., Ann Arbor, 1 planishing and hammering machine.
Wm. Bond, Detroit, picture frames.

FLOWERS.

Wm. S. Maynard, Ann Arbor, Maderia vine, coxcombs.
George Allmandinger, do cut flowers.
Mrs. Jere'h Brown, Battle Creek, 30 varieties indigenous flowers.
T. H. Hinchman, Detroit, Dahlias.

Wm. Adair, Detroit, collection of Dahlias.
do do 12 dissimilar blooms of Dahlias.
do do cut flowers.
do do round boquet.
do do large flat "
do do collection cut roses.
Mixer & Co., Detroit, Floral design.
do do Dahlias.
do do Cut flowers.
do do round boquet.
Miss Emily Mixer, Detroit, basket flowers.
John Ford, do cut flowers and round boquet.
Miss H. U. Noble, Ann Arbor, flowers.
James Neldrett, do 1 boquet.
do do 1 round boquet.
do do design for flower garden.
E. D. Lay, Ypsilanti, Dahlias.
Mrs. C. Tyler, Ann Arbor, cut flowers.
Miss Martha Hill, do 1 grass boquet in moss vase.
Mrs. W. S. Saunders, do 1 " in vase.
Mrs. Mark Norris, Ypsilanti, 82 varieties of cut flowers:—

Hibiscus-perennial, Annual Hibiscus, Lathyrus Catifolius, Lathyrus odoratus, Ageratum Mexicanum, Alyssum maritimum, Amaranthus, Anagallis indica, Aster sinensis, Celosia cristata, Reseda odorata, Antirrhinum, Lopezia coronata, Mirabilis, Petunia, Silene, Helianthus annuus, Phlox drummondii, Phlox perennis, Polygonum, Dianthus Chinensis, Erysimum, Honeysuckle, Nasturtium, Dianthus moschatus, Helurysum, Scabious, Balsamina, Ipomopsis, Glaucina, Verbena, Heliotrope, Jessamine, Rose Geranium, Melissa officinalis, Star of Bethlehem, Chinese Primrose, Dahlias, Dwarf Lupin, Zinnia, Delphinium, Portulacca, 1 moss basket with boquet.

FRUITS.

Miss Mary S. Palmer, Detroit, Fox grapes, from Winsted, Conn.
J. C. Holmes, Detroit, Isabella, Catawba and Clinton grapes.
E. D. Lay, Ypsilanti, apples, 83 varieties:—

Summer Pippin, Jonathan, Strawberry, Alexander, Spice Sweet-

ing, Rambo, White Bellefleur, Red Gilliflower, Green Sweeting, Monstrous Pippin, Transparent Apple, Cheesbrough Russet, Twenty ounce apple, Holland Pippin, Minshells Crab, Beauty of Kent, English Crab, Black Gilliflower, Cooper's Russet, Calville, Priestly, Steels Red Winter, Pound, Flushing Spitzenburgh, Red Siberian Crab, Golden Beauty Crab, Green Newtown Pippin, Fameuse, Winter Russet. Hooker, Twenty ounce Pippin, Hawthornden, Pownal Spitzenburgh, Dumelow's Seedling, Carthouse, Canada Red, White Spitzenburgh, Moore's Red Sweet Pippin, Roxbury Russet, Green Reinette, Swaar, Virginia Red Streak, Wellington, Foxley. Yellow Siberian Crab, Tewksbury Blush, Downton, Monstrous Bellefleur, Winter Pearmain, Spotted Pippin. Ribston Pippin, Pomme Gris, Colvert, Red and Green Sweeting, Baldwin, Golden Russet, Ortley, Green Everlasting, Tallman's Sweeting, Esopus Spitzenburgh, New England Sweeting, Autumn Swaar, Fearn's Pippin, English Russet, Styre, Ruckman's Pearmain, Romanite, Glory of Pippins, R. I. Greening, Phenix, Queen Anne, Surprise, Yellow Newton Pippin, Cider Redstreak, Seek-no-further, Cornish Gilliflower, Sapson, Sweet and Sour, Bourassa. Blenheim Pippin, Ross Nonpareil, Double Blossom, Pomme Royal.

Pears—15 varieties: Colmar, Cattillac, Monsieur Jean, Delices d'-Hardenpont, Prince's Virgalien, Royal Blusb, Urbaniste, Bonchretien, Buffum, Bezi d'Lamotte, White Doyenne, Bartlett, Stevens' Genesee, Autumn Bergamot, Ambrette.

Peaches—Lemon Cling.

Linus Cone, Troy, 6 varieties apples.
do do 2 " pears.
do do 1 watermelon.
Payne K. Leach, Utica, apples.
A. L. Stevens, Nankin, 1 doz. quinces.
L. Chamberlain, Flat Rock, apples.
do do peaches and plums.
J. T. Wilson, Jackson, 4 varieties apples.
do do 2 " pears.
do do 2 " peaches.
E. N. Fairchild, Marion, dish of plums and grapes.

C. A. Chipman, Troy, apples, 15 varieties: Newton Pippin, Winter Calville, Twenty ounce apple, Holland Pippin, Seek-no-further, Snow apple, Pennock's Red Winter, Twenty ounce Pippin, Golden Sweet, Swaar, Pound Sweet, Cabashe, R. I. Greening, Esopus Spitzenburgh.

Pears, 5 varieties: Summer Bon Chretien, Stevens' Genesee, Seckel, Bleeker's Meadow, Iron Pear.

Orange quince.

B. F. Strong, Adrian, Coe's Golden Drop plums.

J. N. Gott, Ann Arbor, 4 varieties peaches.

G. P. Williams, do York Island and Albert Gallatin peaches.

B. C. Hoyt, St. Joseph, 25 varieties peaches.

do do Isabella grapes.

Wm. Finley, Ann Arbor, 12 Lemon cling peaches.

do do Isabella grapes.

S. B. Noble, do 53 varieties apples.

do do 20 specimens seedling apples.

do do 14 varieties named peaches.

do do 22 specimens seedling "

do do water melons.

do do citron "

Wm. Tenbrook, Adrian, 10 varieties apples.

do do Nectarines, grapes.

Mrs. B. Follet, Ypsilanti, 7 varieties apples.

do do peaches, grapes.

B. Fowle, Moscow, 3 varieties apples.

Jere'h Brown, Battle Creek, apples, peaches, watermelons.

H. B. Holbrook, Plymouth, seedling peaches.

Francis E. Eldred, Detroit, 5 varieties of foreign and 2 native grapes, out door culture.

T. H. Hinchman, Detroit, grapes.

A. G. Eastman, Adrian, dish seedling peaches.

J. H. Fellows, Sharon, 31 varieties apples.

J. H. Bagg, Detroit, dish of grapes.

James Dougall, Amherstburgh, C. W., Apples, Hawkins Pippin, green Newton pippin, Herefordshire Pearmain, Bullock's pippin, Drap

d' Or, English Russet, St. Lawrence, red Calville, Hubbardston Nonsuch, Braddock's Nonpareil, Plein d' Juice, Rombo, Monstrous Golden Pippin, Flushing Spitzenburgh, Green Seek-no-further, Romanite, Mela Carla, Keswick Codlin, Ribston Pippin, Goyeau, Domine, Pomme Grise, Royal Russet, Bourassa, Esopus Spitzemburgh, Baldwin, Fameuse, Labute, American Summer Pearmain, Yellow Bellefleur, Long Rosseau, Brabant Bellefleur, Scarlet Pearmain, Red Siberian Crab, Yellow Siberian Crab, Rosseau, Alexander, Hawthornden, Jersey Sweeting, King of Pippins, Blue Pearmain, Winter Pearmain.

Pears—Duchess d' Angouleme, Oswego Beurre, Marie Louise, Stevens' Genesee, Ananas, Autumn Bergamot, Frederick of Wirtemberg, Winter Nelis, Seckel, Spanish Bon Chretien, Beurre, Easter, Louise Bonne d' Jersey, Verte Longue, Andrews, Doyenne Gris, Countess of Lunay, Dunmore, Bezi d' Montigny, White Doyenne, Buffum, Beurre d' Aremberg, Ne Plus Meuris, Bezi d' la Motte, Glout Morceau, Name Unknown, St. Ghislain, Compte d' Lamy, Catillac, striped Dean, Napoleon, Croft Castle, Beurre Capiamont, Passe, Colmar, Bartlett, Gansel's Bergamot, Summer Bonchretien, Flemish Beauty.

Peaches—Teton d' Venus, Prince's Paragon, President, late red Rareripe, Pavie d' Pompone, Druid Hill, Bradishe's Lemon-cling, Green Catharine, La Grange, Late Admirable, Large White-cling, Orange Freestone, Oldmixon-cling, Oldmixon-free, Breroot, French Orange Seedling, Morris White, Red-cling, Golden Necturine.

Wm. Dougherty, Berrien Springs, 1 doz. quinces.

R. J. Barry, Ann Arbor, 10 peaches.

Aaron Eames, Kalamazoo, dish of pears.

do do Native grapes.

Jonathan Shearer, Plymouth, 14 varieties of apples.

Hubbard & Davis, Detroit, apples: R. I. Greening, Black Gilliflower, Calville, Sweet Russet, Swaar, 2 varieties Fall apples for a name, Pomme Royal, Snow, Twenty ounce Pippin, Pound Sweeting, Yellow Siberian Crab, Golden Beauty Crab, Cherry Crab, Holland Pippin, Pemock, Steele's Red Winter, White Gilliflower, Yellow Newtown Pippin, Summer Queen, Early Strawberry, Esopus Spitzenburgh, Pownall Spitzenburgh, Ribston Pippin, Ortley Pippin, Summer Pippin, Hubbardston's Nonsuch, Baldwin, Sweet Bough,

Prince's Yellow Harvest, Sweet Pearmain, Surprise, Yellow Ingestrice, French Pippin, 1 variety winter apples for a name.

Pears—Virgalien, Buffum, Summerbon Cretien, Stevens' Genesee. Yellow Egg plums.

Quince—Portugal, Orange and Common.

Peaches—Incomparable, Albert Galatin, 1 Seedling, Red Cheek Melocoton, Pine apple Cling, Prince's red Rareripe, Crawfords Early, Teton d'Venus, Bergen's Yellow, Crawford's Late, Large White Cling, Melishe's Favorite, Grapes, Beaubien, Virginia Bland.

Francis Raymond, Detroit, dish of red Roman Nectarines.
do do Black Prince grapes.

Thos. Wood, Saline, 53 varieties apples.

J. Simmons, Farmington, 12 quinces.
do do lot do on one limb.
do do 12 apples.

Moses Allen, Plymouth, apples.

Samuel Upton, Gidley's Station, 3 varieties apples.

G. W. Collins, Farmington, 12 peaches.

Charles Davy, Warren, dish of Davy's seedling peaches.

E. Harlow, Plymouth, apples.

Wm. Taft, do 7 varieties apples.
do do 1 do seedling apples.

N. A. Pruder, Ann Arbor, grapes.

J. Depuy, Jackson, 3 varieties apples.

H. F. Baker, North Plains, 3 seedling apples, for a name.

A. Tenbrook, Ann Arbor, 3 varieties grapes.

John Whitier, Jonesville, apples.

John G. Morse, Ann Arbor, 20 varieties seedling peaches.
do do 20 do do apples.
po do Siberian crab apples.

Joseph R. Williams, Constantine, 20 varieties apples.
do do 2 do peaches.
do do 2 do pears.

Wm. Brownwell, Raisin, 2 varieties grapes.

O. L. Warner, Ann Arbor, 12 quinces.

J. Cranson, Brighton, Catawba grapes.

Henry Compton, Ypsilanti, 18 varieties apples,

A. W. Ingraham, Elba, apples.

J. D. Yerkes, Northville, Catawba grapes.

D. Northrop, St. Clair, apples, peaches and plums.

Daniel Cook, Jackson, apples—Holland Pippin, Rhode Island Greening, Winter Pearmain, Summer Queen, Swaar, Unknown, Orange Pippin, Esopus Spitzenburgh, Golden Russet, Unknown, Roxbury Russet, Fameuse, Twenty Ounce Apple, Ramsdell's Sweeting, Tolman's Sweet, Baldwin, Vandevere, Dumelow's Seedling, Early Violet and Elruge Nectarine.

Nathan Lyman, Plymouth, apples—Swaar, Golden Sweeting, Golden Pippin, Golden Russet, English Russet, Chesbro Russet, Rhode Island Greening, Yellow Greening, Fall Greening, Spitzenberg, Esopus Spitzenberg, Steeles' Red Winter Bellefleur, Black Gilliflower, Scolloped Gilliflower, Wine Apple, Rambo, Stone Apple, Pound Sweeting, Red Streak, Seek-no-further, Holland Pippin.

VEGETABLES.

A. L. Stevens, Nankin, 1 doz. onions.

Wm. S. Maynard, Ann Arbor, specimens of pie plant.

Samuel Begole, do 1 doz. turnips.

E. A. Platt, do 3 cauliflowers.

G. P. Williams, do sweet potatoes.

Smith & Burt, Adrian, do

S. B. Noble, Ann Arbor, carrots, beets, parsnips.

do do 3 heads cabbage.

do do tomatoes, egg plants.

do do sweet potatoes.

do do crook-neck squash.

do do 12 ears seed corn.

do do ½ peck potatoes.

do do 6 stalks celery.

do do rhubarb.

L. N. Bowdell, do sweet potatoes.

Jere'h Brown, Battle Creek, 3 varieties potatoes.

Mixer & Co., Detroit, 12 sweet potatoes.

do do 6 heads celery.

Wm. N. Wheeler, Manchester, 12 sweet potatoes.
E. Eddy, Ann Arbor, 1 bushel potatoes.
G. W. Alexander, do cucumbers.
Cyrus Stone, Saline, 1 bushel sweet potatoes.
Wm. Dougherty, Berrien Springs, 1 peck potatoes.
Hubbard & Davis, Detroit, marrow squash.
Judah Taylor, Ann Arbor, sweet potatoes.
P. McCalvy, do 1 bushel sweet potatoes.
S. R Doty, do squashes.
N. A. Pruder, do sweet potatoes.
Philo Parsons, do 12 white table turnips.
do do potatoes.
W. T. Howell, Hillsdale, large purple egg plant.
John G. Morse, Ann Arbor, summer squashes.
do do potatoes.
Jacob Perkins, York, sweet pumpkins.
Mrs. M. Cook, Ann Arbor, winter squashes.
David Depue, do 1 mammoth squash.
B. F. Strong, Adrian, 1 pepper plant.
O. L. Warner, Ann Arbor, 6 beets.
Ephraim Rulon, Raisin, sweet potatoes.
Henry Compton, Ypsilanti, beets.
John Ford, Detroit, cauliflower, broccoli, vegetable eggs, onions, parsley.

STOVES.

D. O. & W. S. Penfield, Detroit, 1 cottage air-tight stove, cast and sheet iron.
do do 1 Lady Washington air-tight stove.
do do 1 sheet iron self-regulating stove, air-tight.
E. T. Williams, Ann Arbor, 1 parlor stove.
do do 1 cook stove.
Jennett & Root, do 2 parlor do.
L. C. Risden, do 1 do do.
J. Simmons, Farmington, 1 cook stove.

C. F. Kneeland, Buffalo, N. Y., 1 register stove.
do do 1 box furnace register.
do do 1 Morse's air distributor.

FIELD CROPS.

Joseph B. Crane, Ypsilanti, 12 ears seed corn.
Edwin A. Platt, Ann Arbor,, specimens "brown" corn.
David M. Uhl, Ypsilanti, 12 ears seed corn.
A. Hoag, Adrian, specimen of wheat from 5¼ acres, as per statement.
Chester Yost, Ypsilanti, lot of yellow dent corn.
E. R. Kearsley, Detroit, 1 bushel blue stem wheat.
J. Eddy, Lodi, 1 bushel white flint wheat.
do 12 ears seed corn.
H. E. Degarmo, Ann Arbor, 1 bushel Poland wheat.
Asa Walker, Farmington, 1 do blue stem do.
Wm. Dougherty, Berrien Springs, 1 bu. Tuscany do.
J. Truesdail, Whitman's Lake, 1 do wheat.
A. Vandine, Northville, 1 do do
Richmond Benton, Plymouth, 1 do flint do
J. Stevens, Spring Arbor, 1 bbl. flour.
Garret Ten Brook, Adrian, 12 ears seed corn.
W.W. Dean, Green Oak, 1 bbl. flour.
J. Scott, Plymouth, 1 bushel blue stem wheat.
E. Delamater, Columbia, 2 stalks corn.
A. N. Hart, Lapeer, 1 bbl. flour.
John C. Culm, Livingston, 1 bbl. flour.
C. A. Comstock, Adrian, 1 do
D. C. Jackson, Jackson Mills, 1 do
D. D. Sloan, Base Lake, 1 do
George Millard, Dexter, 1 do

ESSAYS.

S. S. Preston, Marshall, on the cultivation of Indian corn.
do do do Wheat.
do do do Potatoes.
Bela Hubbard, Detroit, on the proper improvement and enjoyment of country life.

J. F. Chubb,	Grand Rapids,	on the	cultivation	of Corn.
J. G. Morse,	Ann Arbor,	do	do	Potatoes.
do	do	do	do	Wheat.
do	do	do	do	Corn.
do	do	do	raising	of Sheep.
James B. Hunt,	Pontiac,	do	cultivation	of corn.

Reports of the Viewing Committees for 1850.

CATTLE.

The committee on *Short Horn Cattle* report as follows:

Best bull, 3 years old and over, No. 49, Edward Belknap, of Henrietta, Jackson Co., medal and $8 00

2d best bull, 3 years old and over, No. 153, Rice & Dingman, of Farmington, Oakland Co., 7 00

3d best bull, 3 years old and over, No. 233, Wirt Dexter, of Dexter, Washtenaw Co., 5 00

Two year old bulls, none found.

Best bull, one year old, No. 60, Stephen W. Palmer, of Norvell, Jackson Co., 3 00

No others found in this class.

Bull calves, none found.

Best cow, 3 years old and over, No. 50, Edward Belknap, medal and 8 00

2d best cow, 3 years old and over, No. 207, John Van Cleve, Ypsilanti, 7 00

3d best cow, 3 years old and over, No. 234, Wirt Dexter, 5 00

Best heifer, 2 do No. 251, Edward Belknap, 8 00

do 1 do No. 235, Wirt Dexter, 3 00

Best heifer calf, No. 235, Wirt Dexter, 2d prem., 2 00

The committee regret not being able to find a sufficient number of thorough bred animals to fill this class. Many grade cattle were entered as Durhams, which was no doubt inadvertantly done on the part of their owners; but the committee felt obliged to preclude them from examination in the above class, both from the appearance of the

animals themselves, and the absence of such proof as is usually deemed conclusive as to their pedigree among breeders of cattle.

JAMES DOUGALL,
LINUS CONE,
LEWIS F. ALLEN.
Committee on Short Horn Cattle.

Messrs. Dougall and Cone of this committee would also recommend to Mr. Lewis F. Allen, of Black Rock, N. Y., the society's diploma as an honorary testimonial for his show of thorough bred short horn and Devon Cattle. Also to Isaac Askew, of Amherstburgh, Canada West, for exhibiting his fine short horn bull and two very fine grade yearlings, the society's diploma.

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The committee on *Short Horn Cattle* report the following:

GRADE CATTLE.

Best bull, 3 years old and over, No. 98, Benj. Pierson, Flint, Genesee county, medal and	$5 00
Second and third do—none worthy the premiums offered.	
Best bull, 2 years old, No. 6, Wm. E. Anderson, Ann Arbor,	4 00
2d best premium—none worthy.	
3d best bull, 2 years old, No. 2, Loran Downer, Canandaigua,	2 00
Best bull, 1 year old, No. 188, W. H. Hanford, Plymouth,	3 00
2d best—none worthy.	
Best bull calf, No. 69, F. S. Finley, Ann Arbor,	2 00
2d do do 141, J. Freeman, Manchester, Buel's Farmer's Companion.	
3d do do 89, A. S. Brooks, Novi, Oakland county, Allen on Domestic Animals.	
Best cow, 3 years old and over, No. 91, George Tibbetts, Farmington, medal and	5 00
2d do do No. 284, Wm. Congdon, Plymouth,	5 00
3d do do 121, David Uhl, Ypsilanti,	3 00
Best heifer, 2 years old, No. 274, D. C. Vickery, Palma,	4 00
2d do 2 do 215, J. W. Van Cleve, Ypsil'ti,	3 00
3d do 2 do D. C. Vickery,	2 00
Best do 1 do 216, J. W. Van Cleve,	3 00

2d best heifer 1 year old, No. 140, J. Freeman, Manchester, $2 00
3d do 1 do 189, W. H. Hanford, Plymouth,
Allen on Domestic An'mls.
Best heifer calf, No. 90, A. S. Brooks, Novi, 2 00
2d do do 72, F. S. Finley, Ann Arbor,
Buel's Farmers' Com.

To No. 92, John Tibbets, Plymouth, the Society's diploma is awarded for a superior milch cow, half short horn and half native, which was milked in the presence of the committee. She will give in good pasture, in the flush of the season, from 30 to 36 quarts of milk per day.

The cow No. 91, belonging to Geo. Tibbetts, Farmington, and to whom is awarded the first premium, is not only a good animal in herself, so far as size and symmetry are concerned, but testifies to extraordinary qualities; evidence being produced of her yielding fourteen pounds of butter in a week.

JAMES DOUGALL,
LINUS CONE,
LEWIS F. ALLEN,
Com. on Short Horn Cattle.

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The committee on *Devons, Ayrshires* and *Natives* beg leave to report the following:

Best Devon bull, 3 years old and over, No. 14, Wm. H. Edgar, Kalamazoo, medal and $8 00
2d best Devon bull, 3 years old and over, No. 304, Geo. E. Pomroy, Clinton, 7 00
3d best Devon bull, 3 years old and over, No. 19, O. B. Blackmar, Moscow, 5 00
Best Devon bull calf, No. 27, O. B. Blackmar, 3 00
2d do do do 119, P. K. Leach, Utica, 2 00
Best Devon cow, 3 years old and over, No. 199, F. V. Smith, Coldwater, medal and 8 00
2d best Devon cow, 3 years old and over, No. 202, F. V. Smith, 7 00
3d do do do do do 201, F. V. Smith, 5 00

Best Devon heifer, 2 years old, No. 22, O. B. Blackmar, $5 00
Best do 1 do No. 303, F. V. Smith, 3 00
2d do do 1 do No. 15, Wm. H. Edgar, Allen on Domestic Animals.
Best Devon heifer calf, No, 205, F. V. Smith, 3 00
2d do do 205, F. V. Smith, 2 00
Best heifer, 1 year old, ½ Devon, No. 24, O. B. Blackmar, 3 00
2d do do 1 do do No. 25, O. B. Blackmar, 2 00
Best bull calf, ½ Devon, No. 26, O. B. Blackmar, 2 00
2d do do do No. 130, Geo. Clark, Lapeer, 1 00
Best bull, 1 year old, Native, No. 178, Allen Heden, Lodi, 3 00
Best heifer, 2 years old, Native, No. 296, Asa H. Otis, Detroit, 5 00
2d do do 2 do do No. 196, Wm. Green, Romeo, 2 00

The committee respectfully state that in the discharge of their duties they have found a decided improvement in the pure blood Devons, as respects symmetry and condition, over last year's exhibition. With respect to Grades, there are some indications of improvement. Your committee beg leave to suggest that a first and second premium be offered for bulls over three years of age, thereby preventing a difficulty that presented itself to the committee in judging between three year old bulls and those of a more advanced age.

DANIEL B. BROWN,
ISAAC ASKEW,
B. F. FIFIELD,
Committee on Devons, Ayrshires and Natives.

The committee on *Working Oxen, Steers and Fat Cattle*, submit the following report:

Best yoke of working oxen, 4 years old and over, No 48, a pair of twin oxen 5 years old, belonging to Abel F. Fitch, of Michigan Centre, 1st premium, medal and $10 00
2d best yoke, No. 232, a pair of oxen 4 years old last spring, owned by Henry Tibbets, Plymouth, 2d premium, 10 00
3d best yoke No. 175, 5 years old, owned by Henry Hall, of Dexter, 5 00

The committee, in coming to the above conclusion, take into con-

sideration the bearing of the annimals, their compactness of form, hardihood and activity, with their keeping qualities.

Best yoke of 3 year old steers, No. 87, mixed blood, owned by A. S. Brooks of Novi, 1st premium, $10 00

2d best yoke of 3 year old steers, No. 222, a yoke of red and white steers, owned by John Starkweather, Ypsilanti, 2d premium, Buel's Farmers' Companion, and 5 00

The committee take occasion to say that the above specimens of grade cattle are the very best that have ever come under their observation.

Best yoke of 2 year old steers, No. 259, a pair of native steers, owned by J. Burt, Van Buren, Wayne county, 6 00

Best single steer, 3 years old or under, No. 245, a grade steer, owned by J. H. DeGarmo, Ann Arbor, 5 00

Best heifer 2 years old or under, No. 185, Lewis P. Miller, Moscow, Hillsdale county, 5 00

Under this number, [185] is also comprised 2 yokes of yearling steers, to which we recommend a special premium of 3 00

Your committee also recommend a special premium to No. 314 being 4 matched 3 year old steers, natives, belonging to Joseph Smith, Green Oak, Buel's Farmer's Companion.

Best milch cow, No. 244, grade cow, the 1st premium is awarded to her for reasons set forth in the accompanying certificate, H. DeGarmo, medal and $8 00.

Of fat cattle, none offered.

The committee award the premium on the best ten yoke of oxen from one county, to those presented from Washtenaw county, $20 00

S. M. BARTLETT,
H. ROGERS,
Com. on Working Oxen, Steers and Fat Cattle.

The committee on *Horses* submit the following report:

CLASS I—FOR ALL WORK.

Best stallion 4 years old and over, No. 181, Wm. Alcott, of Albion, the first premium for "Oscar," 8 years old, medal and $8 00

2d best stallion 4 years old and over, No. 46, Isaac Schram, G'd Blanc, 2d premium for 'Bold Farmer,' 7 years old, 8 00

3d best stallion 4 years old and over, No. 260, A. Gardner, Lodi, 3d premium for his horse, 8 years old, part Morgan, Youatt on the Horse, and $3 00

Best brood mare, No. 74, L. Chamberlain, Flat Rock, for his bay mare, 7 years old, 1st premium, medal and 8 00

2d best brood mare, No. 174, Elial M. White, Milford, for his chestnut mare, over 4 years old, 2d premium, 8 00

3d best brood mare, No. 237, Amos Hoag, Adrian, for his bay mare, 7 years old, 3d premium, Youatt on the Horse, and 3 00

CLASS II—DRAUGHT HORSES.

Best stallion 4 years old and over, No. 149, Samuel Lathrop, Plymouth, for his bay horse, 6 years old, 1st premium, medal and 8 00

2d best stallion 4 years old and over, No. 18, Bradley Harrington, Hudson, for his horse "Kentucky Lion," 7 years old, 2d premium, 8 00

3d best stallion 4 years old and over, Major Ward, Livonia, for his chestnut horse, "Young Zack," 3d premium, 5 00

Best brood mare, No. 129, George Clark, Lapeer, for his bay mare, 8 years old, and colt, 1st premium, medal and 8 00

2d best brood mare, No. 278, J. Lowry, Lodi, for his mare and colt, 2d premium, 8 00

3d best brood mare, No. 187, J. M. B. Renwick, Salem, for his mare and colt, 3d premium, 5 00

CLASS III—BLOOD HORSES.

Best stallion, 4 years old and over, No. 261, A. B. Peterson, of Dexter, for his horse "Brag Trotter," 11 years old, 1st prem., medal and 8 00

2d best stallion, No. 182, Andrew Y. Moore, of Schoolcraft, for his horse "Bucephalus," 7 years old, 2d prem., 8 00

3d best stallion, No. 176, Wm. Teeple, of Salem, for his chestnut horse, "Young Revenge," 3d prem., Cole's Amer. Veterenarian and 4 00

Best brood mare, 4 years old and over, No. 297, Luther Green, of Farmington, for his bay mare, 1st premium, medal and 8 00

2d best brood mare, No. 177, Joseph M. Irish, of Franklin, for his blood mare, 3d prem., Cole's Amer. Veterenarian and $4 00

THREE YEAR OLD STALLIONS AND MARES.

Best stallion, 3 years old, No. 131, M. H. Crane, of Albion, for his horse "Young Blackhawk," 1st prem., 7 00

2d best stallion, No. 110, James D. Vanhovenburgh, of Jonesville, for his stallion, 2d prem., 5 00

3d best stallion, No. 115, Moses Rumsey, of Trenton, for his chestnut stallion "Mahomet," 3d prem., 3 00

Best mare, 3 years old, No. 161, Wm. Maiden, of Redford, for his mare, 1st prem., 7 00

2d best mare, No. 164, Chas. Blair, of Tipton, 2d prem., 5 00

3d do No. 303, S. Foster, of Ypsilanti, for his mare, 3d prem., 3 00

TWO YEAR OLD STALLIONS AND MARES.

Best stallion, 2 years old, No. 57, Chas. M. Merryman, of Ecorse, for his bay stallion, cross of "Duroc" and "Messenger," 1st prem., 3 00

2d best stallton, No. 132, Gelba Knapp, of Albion, for his stallion, 2d prem., Youatt on the Horse.

3d best stallion, No. 294, John Pryer, of Saline, for his stallion, "Jim Grey," 3d prem., 1 00

No mare 2 years old, worthy of premium.

ONE YEAR OLD STALLIONS.

Best stallion, 1 year old, No. 96; Ezra N. Fairchild, of Marion, Livingston county, for his one year old stallion, 1st premium, $2 00

2d, best stallion 1 year old, No. 30. David Depue, of Ann Arbor, for his stallion, 2d, prem. Cole's Amer. Veterenarian.

MATCHED HORSES.

Best pair matched horses, No. 219, D. F. Hendry of Marshall, for his span of matched horses, 7 years old 1st. prem. 10 00

2d best pair matched horses, No. 262, T. G. Cole, of Monroe, for his span of matched horses, 6 years old, 2d prem. 8 00

3d best pair matched horses, No. 291, Chas. Dickey, of Marshall, for his matched bay horses, 4 & 5 years old 3d prem. $5 00

4th best pair matched horses, No. 142, Freeman & Delemater, of Manchester, for their span of iron greys, 4 & 5 years old, 4th prem. 3 00

A. L. HAYS,
THOS. L. ACKER,
W. S. WILCOX,
BENJ. PIERSON,
GEO. D. HILL,
Committee on Horses.

REPORT OF COMMITTEE ON SHEEP.

Your committee would respectfully submit that they have performed the duty assigned them, and were highly gratified with the exhibition, showing as it does an increasing interest in our annual shows. Yet, while they were pleased with the number and quality of the sheep exhibited, it is a matter of regret, that others having as good, have been deterred from entering for premiums, from the fear of not successfully competing with others.

Your committee beg leave to notice favorably, the foreign sheep upon the ground, and would recommend them to the favorable notice of the wool-growers of Michigan. More particularly those of J. D. Patterson, of Westfield, Chatauque county, N. Y. They are superior to anything we have seen, and would therefore recommend that the society's diploma be presented to Mr. Patterson. In making awards, your committee have taken into consideration not only the size of the animal, but the quality in connection with the quantity of wool each sheep would probably shear.

We would recommend that premiums be awarded as follows, viz:

CLASS I—LONG WOOL.

Best buck, over 2 years old, No. 100, Jonathan Shearer, of Plymouth, Wayne county, for his Leicestershire buck, 1st prem., medal and 5 00

2d best buck, No. 52, Edward Belknap, of Henrietta, Jackson county, for his Leicester buck, "Monarch," 18 mo. old, 2d prem., 5 00

3d best buck, No. 100, Leicester buck, J. Shearer, 3d prem, $3 00

Best pen of 5 ewes, No. 171, J. A. Austin, of Plymouth, 1st prem., medal and 8 00

CLASS II.—MIDDLE WOOL.

Best buck over 2 years old, No. 136, Wm. Whitfield, of Waterford, for his southdown buck, 1st prem., medal & 5 00

2d best buck over 2 years old, No. 136, Wm. Whitfield, 5 00

3d do do John Kirk, of Dearborn, for his southdown buck, 2 years old, 3d prem. 3 00

Best pen of 5 ewes, No. 138, Wm. Whitfield, for his southdown ewes, medal & 8 00

Best pen of 5 buck lambs, Wm. Whitfield, 5 00

CLASS III.—MERINOES AND THEIR GRADES.

Best buck 2 years and over, No. 267, J. Lowry of Lodi, for his merino buck, 1st premium, medal & 5 00

2d best buck 2 years and over, No. 225, A. W. Spafford, of Elba, for his merino buck, 5 years old, 2d prem, 5 00

3d best buck 2 years old and over, No. 265, Thos. Wood, Saline, for his merino buck, 3d prem. 3 00

Best buck under 2 years old, No. 133, Eben'r Arnold, Dexter, for his Pauler merino buck, 1st prem. 5 00

2d best buck under 2 years old, No. 191, David M. Uhl, of Ypsilanti, for his merino buck, 2d prem. 3 00

3d best buck under 2 years old, No. 16, Geo. W. Gale, Ypsilanti, for his full blood French merino buck, 3d prem., 2 00

Best pen of 5 ewes, No. 17, Geo. W. Gale, for his pen of 5 ewes, ½ French and ½ Spanish merino, 1st prem., medal & 8 00

2d best pen of 5 ewes, No 134, Eben'r Arnold, for his 5 Pauler merino ewes, 2d prem., 8 00

3d best pen of ewes, No. 266, J. Lowry, for his pen of 6 merino ewes, 3d prem., Morrel's American Shepherd and 4 00

Best pen of 5 b'k lambs, no. 145, T. L. Spafford, Elba, 1st pem., 5 00

2d best pen of 5 buck lambs, No. 159, John Brewer, Superior, for his pen of 5 buck lambs, ¼ French and ¾ Spanish merino, 3 00

Best pen of 5 ewe lambs, No. 146, T. L. Spafford, 1st prem., 5 00

2d best pen of 5 ewe lambs, No. 160, John Brewer, Superior, 2d prem. 3 00

CLASS IV—SAXONS AND THEIR GRADES.

Best buck, over 2 years old, No. 248, D. D. Gillet of Sharon, for his Saxon buck, 1st premium, medal and	$5 00
2d best buck, over 2 years old, No. 169, Samuel A. Hubbard of Tipton, for his Saxony buck, 2d premium,	5 00
3d best buck, No. 169, Sam'l A. Hubbard, 3d premium,	3 00
Best buck under 2 years old, No. 169, Samuel A. Hubbard, 1st premium,	5 00
2d best buck, under 2 years old, No. 249, D. D. Gillett, for his Saxon buck, 1 year old, 2d premium,	3 00
3d best buck, under 2 years old, No. 254, D. A. Mills, Manchester, for his Saxon buck, 1 year old, 3d premium,	2 00
Best pen of 5 ewes, No. 252, D. D. Gillet, 5 Saxon ewes, 1st premium, medal and	8 00
2d best pen of 5 ewes, No. 257, D. A. Mills, Manchester, 2d premium,	8 00
Best pen of 5 buck lambs, No. 255, D. A. Mills,	5 00
2d best do 250, D. D. Gillet,	3 00
Best pen of 5 ewe lambs, No. 251, do	5 00
2d best do do 256, D. A. Mills,	3 00

FAT SHEEP.

Best fat sheep, No. 101, J. Shearer, Plymouth, for his fat Leicester buck, weighing 200 pounds, 1st premium,	3 00
2d best fat sheep, No. 101, J. Shearer,	2 00

SHEPHERD'S DOGS.

A welll trained shepherd's dog was exhibited by D. D. Gillet, Sharon; your committee award to him the 1st premium,	5 00

E. T. LOVELL,
WALTER WRIGHT,
A. J. KEENEY,
Com. on Sheep.

SWINE.

The committee on swine would respectfully report that they have attended to the duties assigned them, and found but two specimens in their department, viz: No. 31, a brood sow of the Licester and berkshire breed, properly termed, as we view it, one of the small breed. The committee consider it worthy of the 1st premium of

that classs, owned and exhibited by Mr. Wm. McCormick, of Ann Arbor. Gaylord and Tucker's Am. Husbandry and $3 00.

No. 107. A boar pig, described as eight weeks old, a cross of the Leicester and Byfield breeds; although not coming within either class designated in the premium list, we recommend it as worthy of a special premium. Exhibited by Wm. G. Goodwin, Union City, Calhoun county. Prem., Allen on Domestic Animals.

J. C. CHUBB,
CHAS. BLAIR,
JOHN CHAMBERLAIN,
Com. on Swine.

POULTRY.

The committee to whom was referred the examination of poultry, would respectfully report that they have attended to the duties assigned them, and award the following premiums, to wit:

1 lot of large hens, No. 32., Wm. McCormick, Ann Arbor,	$3 00
1 lot of Poland fowls, No. 12, Wm. E. Andesson, Ann Arbor,	3 00
1 lot of white turkeys, No. 128, C. S. Goodrich, do	3 00
1 lot of Guinea fowls, No. 135, Samuel Begole, Ann Arbor,	2 00
Best pair of geese, No. 306, Jacob Perkins, York, Washtenaw county, Cock's Am. Poultry Book and	1 00

Your committee regret exceedingly that a greater display of poultry was not presented. The delicacies of the table should not be neglected. There were no Dorkings or Malays brought forward. We would sincerely recommend that more attention be paid to the raising of the different varieties of poultry.

ANDREW Y MOORE,
Ch'n of Com. on Poultry.

FARM IMPLEMENTS.

The committee on farm implements would respectfully report, that they have found a large variety of utensils, presented for examination and competition, and they have frequently felt much embarrassed in making selection of the best, where all of the class were so good. But they have sought to do justice to all; yet they cannot but fear that the short time allowed them, together with the unfavorable state of the weather, may have prevented adequate notice of every specimen presented.

Best plow for general purposes, No. 5, being Peekskill plow No. 4, D. O. & W. S. Penfield, of Detroit, diploma and	$5 00
Best plow for light soils, No. 6, Peekskill plow, No. 3, Messrs. Penfields,	5 00
Best sub-soil plow, No. 12, only specimen, Pennfield's,	5 00
" side-hill plow, " 13, do do	5 00
Best cast iron plow, " 77, Michigan manufacture, best for stiff soils, and entitled to 1st prem., D. H. Scott, Belleville, Wayne county,	5 00
Best steel plow, No. 134, a superior article, manufactured by Adam Plantz, Detroit, 1st prem.,	5 00
Best horse-power for general puposes, No. 29, Wheeler, Mellick & Co., Albany, N. Y.,	10 00
Best horse-power & thresher, No. 31, Wheeler, Mellick & Co.,	10 00
Best smut machine, No. 36, E. O. & A. Crittenden, Ann Arbor,	5 00
Best buckwheat scourer, No. 18, Penfield's, "Transactions."	
" cornstalk cutter, No. 85, W. M. Brown, Ypsilanti,	3 00
" straw cutter, No. 135, B. Densmore, Brockport, N. Y.,	3 00
" plow clevis, No. 1 47, worthy of notice, J. Simmons, of Farmington,	50
" meadow renovater, No. 165, worthy of notice, E. L. Freeman, Ann Arbor, diploma.	
" hay rigging, No. 181, Wm. Taft, Plymouth, 1st prem , Gardner's Farmers Dictionory.	
" corn and cob crusher, No. 37, J. T. Wilson, Jackson,	3 00
" 6 scythe snaths, No. 41, Pinney, Connable & Co., Jack.,	1 00
" grain cradle, No. 42, do do	2 00
" 6 hay forks, No. 43, do do	2 00
" 6 manure forks, No. 44, do do	2 00
" harvest rake, No. 48, S. Stanbrough, Plymouth,	2 00
" harrow, No. 53, James Depue, Spring Arbor,	5 00
" 6 hand rakes, No. 78. Charles B. Loud, Northville,	2 00
" fanning mill, No. 220, Charles Felt, Kalamazoo,	5 00
" corn sheller, No. 14, D. O. & W. S. Penfield, Detroit,	5 00
" clover machine, No. 89, T. A. Haviland, Ann Arbor,	1 00

Best mortice machine, No. 34, Chandler Carter, Manchester, diploma.

" farm waggon, No. 141, E. Chope, Detroit, diploma and $5 00

2d best do " 179, J. E. Beebe, Jackson,, Browns Trees of America.

Best wheat drill and corn planter, No. 131, Aaron Palmer, Brockport, N. Y., 5 00

" corn sheller, horse-power, No. 105, B. Penfield, Aurora, Erie county, N. Y., 5 00

J. Baldwin, Mt. Clemens, for Telegraphic churn, "Transactions."

Best and most numerous collection of agriculturel implements manufactured in the State of Michigan, Pinney, Connable & Co., Jackson, 10 00

" and most numerous collection of agricultural implements manufactured out of the State, Emery & Co., Albany, N. Y., 10 00

J. E. BEEBE,
P. R. ADAMS,
EDW'D S. MOORE,
Committee on Agricultural Implements.

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PLOWS AND PLOWING.

The committee on plows and plowing, report that no plows were registered or submitted for their inspection.

The committee, having proclaimed the following rules and regulations to be observed at the plowing-match, four teams took their stations.

Rules.—The committee will adjudge that plow to be the best, which combines to the greatest degree, the following qualities, viz: Speed of plowing, ease of doing it, the best quality of work and simplicity and durability of construction. They will base their judgment upon appearance and experiment.

Plowing.—A portion of ground will be surrounded by one or more furrows, turned outward. This will be laid off into lands of equal size; the teams will plow one or more at a time, according to

the number entered, compared with the time to be occupied. Each team must commence by turning a double furrow from one stake to another, and back-furrow one third of the ground it is to plow. It must then plow one third, turning the furrows outward on all sides, and the other third turning outward on the sides and not on the ends.

The plowing must be seven inches deep; and premiums will be awarded to that description of plowing which is done with the greatest ease and facility, and of the best practical quality for general farming.

The saving of labor and improving the quality of that most essential part of husbandry will be leading tests. The teams which took their stations, were all two horse teams, viz: Nos. 10, 116, 124 and 322. The ground selected, was a loam surface, with a strong clay subsoil: and had never been plowed deeper than six inches.

No. 322, Wm. Fuller, of Pittsfield. Washtenaw county, plowed only six inches deep, therefore, raised no subsoil. His plow run level, and he plowed handsomely and with great speed, completing his quarter of an acre in forty-nine minutes. This plowing was straight, and the furrows handsomely turned; but his plowing, though rapidly and well done, wanted the essential requirement of the executive committee, to wit: depth. It cut up none of the clay or subsoil below. We recommend it as neat and rapid plowing. We recommend premiums as follows:

To No. 116, 1st premium; time 73 minutes, depth 7½ inches, Edward Moore, Ann Arbor, $10 00

" No. 10, 2d premium; time 60 minutes, depth 7 inches, Wm. E. Anderson, Ann Arbor, Gardner's Farmers Dictionary and 7 00

" No. 124, 3d premium; time 74 minutes, depth 7¼ inches, G. Drake, Ann Arbor, 5 00

We cannot recommend No. 322, Wm. Fuller for a premium, because his plowing is too shallow.

We recommend the first premium to No. 116, because while he is beat in time by No. 10, he nevertheless plowed fast enough for practical farming, and raised half an inch more subsoil than wes required. His double furrow and dead furrow, were extremely well done; the former being straight and nearly level with the other plowing, and

the latter well turned over without cutting below the rest of the work. His ground was all cut up and well turned.

We recommend the second premium to No. 10, because his plowing was well done and more rapidly than No. 116. His was much the most powerful team on the ground and worked with greater ease than the others, but the character of the work, the dead furrow, the double furrow and depth of plowing, though good, was not quite so good as No. 116. No speed can compensate, in the opinion of the committee, for any deficiency in quality of work.

We recommend No. 124 for the third premium, because his plowing was quite equal to No. 10 in all things except speed.

In awarding these premiums we wish to impress upon farmers the importance of deep plowing, and to illustrate the truth that speed is always a secondary consideration in farming, and that superior work with reasonable speed, is most valuable in agriculture.

JUSTUS GOODWIN,
SAMUEL A. HUBBARD,
Com. on Plows and Plowing.

BUTTER, CHEESE, SUGAR, HONEY AND BEE HIVES.

The committee on butter, cheese, sugar, honey and bee hives, make the following report:

For the best lot of not less than 15 pounds of butter, of the make of thirty consecutive days, from two cows, the 1st premium is awarded to No. 7, Hannah Begole of Ann Arbor, $7 00

Best 10 pounds of butter, made in June, No. 21, H. E. De Garmo, Ann Arbor, Transactions for 1849 and 1 00

Best 15 pounds of butter made at any time, No. 1, B. Holmes, Ann Arbor, Transactions and 1 00

2d best 15 pounds of butter, made at any time, No. 2, O. White, Ann Arbor, 2 00

CHEESE, ONE YEAR OLD AND OVER.

Best cheese, one year old and over, not less than 25 lbs., No. 28, Loren Moore, York, Washtenaw county, 5 00

2d best cheese, one year old and over, not less than 25 lbs., No. 15, J. Griffith, Farmington, 2d premium, Webster's Encyclopedia of Domestic Economy.

Best cheese under one year old, not less than 25 lbs., No. 28, Loren Moore, York, $5 00

2d best cheese under one year old, not less than 25 lbs., No. 13., L. Lapham, Farmington, 2d premium, Webster's Encyclopedia of Domestic Economy.

3d best cheese under one year old, not less than 25 lbs., No. 15, J. Griffith, 3d premium, 2 00

HONEY.

Best 10 pounds of honey, to O. L. Warner Ann Arbor, 1st premium, 3 00

2d 2d best 10 lbs. honey, to Seth Hughes, Northville, 2 00

3d best do do H. W. Griswold, Niles, 3d premium, 7th vol. Mich. Farmer.

MAPLE SUGAR.

Best 5 pounds maple sugar, No. 148. Aaron Eames, Kalamazoo, 5 00

2d best 5 pounds do do 208, D. Ingalls, Almont, 3 00

3d do do do 180, William Blackmar, Plymouth, 7th vol. Mich. Farmer.

BEE HIVES.

Best bee hive, No. 4, S. D. Noble, Ann Arbor, 3 00

WM. MOORE,
ISAAC J. VOORHIES,
JOHN AXFORD,
Com. on Butter, Cheese, Sugar, &c.

DOMESTIC MANUFACTURES.

The undersigned, committee on domestic manufactures respectfully report that they have examined the several articles presented for premiums, some of which were in the list of articles made up by the executive committee, as published, but many other articles were also presented, which the committee have felt it their duty to recommend for discretionary premiums; and they would respectfully suggest that most of the articles so recommended should be placed on the list of future years, with fit and proper premiums, which would save a great deal of time to the viewing committee when time is of great value.

Best pair of woolen blankets, Mrs. John Jones, Dearborn, $4 00
2d do do Chester Yost, Ypsilanti, Transactions for 1849.
Best pair of woolen knit stockings, Misses Sawyer, Grand Bl'c, 2 00
2d do do Mrs. John Jones, Dearborn, 1 00
Best pair woolen knit sacks, Misses Sawyer, 2 00
2d do do Mrs. John Palmer, Detroit, 1 00
Best pair cotton knit stockings, Misses Sawyer, 2 00
2d do do B. Holmes, Ann Arbor, 1 00
Best pair cotton knit socks, Mrs. Sawyer, 1 00
Best pair linen knit stockings, Mrs. Sawyer, 2 00
Best 10 yards of flannel, Miss Lydia D. Douglass, Ann Ar., 4 00
2d do do Mrs. A. L. Stevens, Nankin, Trans.
Best 10 yards rag carpet, Mrs. Isaac J. Voorhies, Pontiac, 3 00
2d do do D. D. Gillet, Elba, 2 00
3d do do John Swett, Redford, 1 00
Best 10 yards tow cloth, G. Tenbrook, Adrian, 3 00
Best hearth rug, Miss Sarah E. Owen, Grand Blanc, 3 00
2d do Mrs. N. M. Shoff, Ann Arbor, Transactions.
3d do John Ferrier, Ypsilanti, 1 00
Best 10 yards woolen cloth, C. Cornwell, Ann Arbor, 5 00
2d do do C. Cornwell, 3 00
For best worked quilts, other than silk, Mrs. J. A. Baughman, Detroit, 3 00
" best white quilt, Mrs. James B. Hunt, Pontiac, 2 00
" silk quilt, Mrs. W. S. Saunders, Ann Arbor, 3 00
" woolen shawl, Mrs. Isaac J. Voorhies, Pontiac, 3 00
2d best do do do 2 00
For best pr. woolen mittens, John Swett, Redford, 1 00
" 10 yds ingrain carpet, Mrs. R. Comstock, Commerce, 5 00

The committee recommend that discretionary premiums be awarded to the following articles, viz:

One pr. fine woolen hose, an excellent article, H, E. DeGarmo, Ann Arbor, 50
Knit shell work bed spread, a great deal of work, and deserving a premium, Mrs. Hellems, Adrian, 3 00
Four skeins worsted yarn, 1 pr. worsted hose, 1 pr. socks,

tripple thread, the work of a poor family, remarkably well done, they should be encouraged; Maria Warner, Plymouth, $3 00

A glass jar of Tobacco and a fancy show card, good, Henry Miller, Detroit, diploma.

One pr. linnen pillow cases, very fine, Chester Yost, Ypsilanti, 1 00

A pr. woolen clocked hose, very beautiful, Mrs. W. A. Dennison, Troy, Oakland county, 1 00

Five skeins very fine stocking yarn, J. F. Royce, Ann Arber, 1 00

A very beautiful one horse harness, L. Baldwin, Detroit, diploma.

An elegant bed quilt, Mrs. M. Hutchinson, Ann Arbor, 1 00

A very beautiful patch bed quilt, Mrs. B. F. Granger, Manchester, 1 00

A crochet quilt, containing 96 squares, with a deep and very beautiful border, Miss Emma Dorsch, Detroit, 2 00

Two pr. fine silk stockings, 2 bundles of silk, G. W. Collins, Farmington. These articles are a premium, and should be encouraged· The ladies deserve great credit, diploma.

Four pieces excellent cassimere, L. Etheredge, Kalamazoo, Transactions and 2 00

Four pieces cassimere, C. D. Millard, Dexter. These cloths are of the finest quality, and should be encouraged. Transactions and 2 00

Wooden-ware, consisting of 4 pails, 4 half-bushels, 1 tub, 1 churn, 1 bottle, Caleb Lamson, Ypsilanti, 2 00

One pair of exceedingly fine woolen mittens, Misses Sawyer, Grand Blanc, 50

One pair beautiful silk stockings, Misses Sawyer, 1 00

" " fine linnen stockings, Mrs. Jacob Rolland, Ann Arbor, 1 00

One pair boot lasts, H. Borce, Northville, 1 00

Three carriage and one riding whip, L. S. Noble, Detroit, diploma.

We respectfully recommend that the list of domestic articles be

extended much beyond the present list. There were many articles exhibited which reflected great credit on the manufacturers, and which were necessarily passed over by the committee, because no premiums were offered, and they could not extend these discretionary premiums. The taste and industry, of the ladies are worthy of all praise in this department of the society. They have ornamented the building with their work, and we return them our thanks for the great addition which their labors make to the annual fairs of our agricultural society.

All of which is respectfully submitted.

JAMES B. HUNT,
JERE'H BROWN,
J. H. BAUGHMAN,
Committee on Domestic Manufactures.

NEEDLE, SHELL AND WAX WORK, PAINTINGS, DRAWINGS, DAGUERREOTYPES &C.

Your committee report the following catalogue of articles which have fallen under their review, with remarks appended, according to the character and merits of each deemed deserving of notice.

Best ornamental needle work, No. 50, being a worked muslin shawl, first premium, Mrs. J. Starkweather, Ypsilanti.

The whole collection from No. 50 to No. 58 inclusive, consisting of a French worked linen cape, lace cape, muslin under h'dk'f., 2 linen pocket h'dk'fs., 3 p'r. cuffs and sleeves, muslin collar, breakfast cap, 4 p'r. bands and cuffs, and 2 p'r. cotton stockings, all the work of Mrs. J. Starkweather, Ypsilanti, is deserving of much praise.

Best ottoman cover, No. 17 and No. 138, being ottoman covers well set, and finished in appropriate mahogany frames, No. 17 being judged superior, we award to it the 1st. premium; Mrs. C. Taylor, Ann Arbor, Downing's Cottage Residences.

Of simple ottoman covers, No. 127 as specimens of embroidery, and Nos. 104 and 105 of raised work, had the preference; No. 127 being preferred to the latter, is entitled to a premium.

Best table cover, No. 9, is superior to all others; 1st prem., to Mrs. Eliza Dorsch, Detroit, $2 00

Best group of artificial flowers No, 12, Miss Sarah H. Palmer, Detroit, 1st prem. $2 00

" specimen of worsted work No. 47, a worsted coat, by Mrs. B. Follett, Ypsilanti, 2 00

" fancy chair work with needle, No. 14, Miss Francis M. Kent, Jackson, Downing's Cottage Residences.

" worked collar No. 36, Miss Adaline B. Mead, Plymouth, 1st prem. 2 00

" patch quilt No. 48, Mrs. Mark Norris, Ypsilanti, 2 00

" portfolio worked, No 34, Miss Martha W. Ladd, Ann Arbor, 2 00

Best ornamental shell work, No. 67, Mrs. W. S. Saunders, Ann Arbor, 2 00

" two lamp mats, No. 16, H. Holmes, Ann Arbor, 1 00

" specimen of wax flowers, No. 106, Miss H. Gregory, Ann Arbor, 2 00

2d best, specimens wax flowers, No. 113, Mrs. E. M. Whitaker, Ann Arbor, 1 00

Best specimen of animal painting in oil, by Michigan artist, No. 13, L. H. Cohen, Detroit, 3 00

" specimen of painting, in water colors and pencillings, Miss M. Cellem, Richland, Kalamazoo county, Downing's Cottage Residences.

" specimens of daguerreotypes, No. 72, Jas. E. Martin, Detroit, 2 00

2d best, do No. 91, J. W. Merrick, Adrian, 1 00

A beautiful lace cape, by Miss Clarissa Davis, Ypsilanti, a premium of 2 00

Best silk bonnet, No. 109, Miss M. Hutchinson, Ann Arbor, 2 00

The committee recommend a premium to be given to No. 24, the best crochet bonnet, Mrs. S. Denton, Ann Arbor, 1 00

Also to Nos. 28 and 38, both net shawls, the former, No. 28, superior, Mrs. Rhoda Fuller, Ann Arbor, 1 00

No. 38, Miss Lydia D. Douglass, Ann Arbor, 1 00

To No. 119, being a very superior specimen of Monochromatic painting, S. Copeland, St. Clair, diploma.

To No. 7, a remarkable specimen of ingenuity in hair work it being a beautiful boquet of flowers, by Miss Emma Dorsch, Detroit, Downing's Cottage Residences.

" No. 171, a specimen of marble work, by L. S. Skinner, Pontiac, $2 00

" No. 4, a knit bedspread, by Mrs. Hannah Gardner, Detroit, 2 00

GEORGE DUFFIELD,
S. H. DOUGLASS,
JOHN A. WELLES,
Committee on Needle, Shell, Wax Work, &c.

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FRUITS AND FLOWERS.

The committee on fruits and flowers, would respectfully report, that they have examined with as much care as time and circumstances would permit, the different kinds of fruit and flowers exihbited, but regret that time would not permit a more thorough examination than they were able to give.

The committee are proud to say that they had no difficulty in finding in Floral Hall the most choice varieties of the different kinds of fruit that are grown in a northern climate. There was so much fruit exhibited of the highest merit that we were at a loss to determine what particular specimens were entitled to the preference. It is proper to state that many fine specimens of fruit and flowers were passed by, in consequencc of there not being sufficient in number, and not named and labeled according to the rules of the society. The committee have judged the following list of fruits and flowers as worthy and entitled to the premiums here named, viz:

APPLES.

Best and greatest variety of good table apples, three of each variety, named and labeled, grown by exhibitor, E. D. Lay, Ypsilanti, 83 varieties, Hovey's Fruits and Fruit Trees, with colored plates.

2d best and greatest variety, Messrs. Hubbard & Davis, Detroit, 2 00

3d best and greatest variety, J. H. Fellows, Sharon, 31 varieties, Thomas' Fruit Book and $2 00

Best 10 varieties table apples, S. B. Noble, Ann Arbor, 37 varieties, 5 00

2d best 10 varieties, Jona. Shearer, Plymouth, 3 00

Best 6 winter varieties, Nathan Lyman, Plymouth, one volume Hovey's Magazine of Horticulture.

2d best 6 winter varieties, Linus Cone, Troy, Downing's Fruit and Fruit Trees.

Best fall seedling apples, 10 specimens, S. B. Noble, Ann Arbor, 4 00

2d best fall seedling apples, Wm. Taft, Plymouth, 7th Vol. Mich. Farmer.

For 10 varieties of apples, Wm. Tenbrook, Adrian, a discretionary premium of 2 00

" 20 varieties of apples, Joseph R. Williams, Constantine, a discretionary premium of 3 00

No. 78, 79 and 80, foreign apples, pears and peaches, from Jas. Dougall, Amherstburgh, Canada West, the committee recommend a discretionary premium of $3 to each, 9 00

PEARS.

Best and greatest number of varieties of good pears, E. D. Lay, Ypsilanti, 5 00

2d best and greatest number of variety of good pears, Messrs. Hubbard and Davis, Detroit, 3 00

Best collection of autumn pears, Linus Cone, Troy, Downing's Landscape, Gardening and Agriculture, or 3 00

2d best collection of autumn pears, C. A. Chipman, Rochester, 7th volume Mich. Farmer.

PEACHES.

Best 10 varieties, S. B. Noble, Ann Arbor, 5 00

2d best 10 " Hubbard and Davis, Detroit, one vol. Horticulturist, or 3 00

Best 10 specimens, Wm. Finley Ann Arbor, 3 00

2d best 10 " J. N. Gott, Ann Arbor, Downings Fruits and Fruit Trees.

Best seedling variety, 6 specimens, A. G. Eastman, Adrian, $3 00
2d best do 6 do Hubbard & Davis, 7th vol. Michigan Farmer.

PLUMS.

Best collection plums, 6 specimens each, B. F. Strong, Adrian, 3 00
" 12 plums, Hubbard & Davis, Downing's Fruits and Fruit Trees of America.

NECTARINES.

Best 6 specimens, F. Raymond, Detroit, Downings Fruits & Fruit Trees of America.

QUINCES.

Best 12 quinces, J. Simmons, Farmington, 5 00
2d best 12 do Hubbard & Davis, 3 00
3d do 12 do Wm. Dougherty, Berrien Springs, 7th Vol. Michigan Farmer.

GRAPES.

Best and most extensive collection of native grapes grown in the open air, T. E. Eldrid, Detroit, 5 00
2d best and most extensive collection of native grapes grown in the open air, Wm. Tenbrook, Adrian, Allen on the Grape and 2 00
Best dish of native grapes, A. Tenbrook, Ann Arbor, 2 00
2d best do do J. D. Yerkes, Northville, Allen on the Grape.

WATERMELONS.

Best 4 specimens watermelon, Jere'h Brown, Battle Creek, 2 00
" citron melon, discretionary prem., S. B. Noble, 50

DAHLIAS.

Best and greatest variety, Mixer & Co., Detroit, Beck's Botany of the United States.
" 12 dissimilar blooms, Wm. Adair, Detroit, 1 00

CUT FLOWERS.

Greatest variety and quanty cut flowers, Mrs. Mark Norris, Ypsilanti, 80 varieties named, 3 00
Best and greatest variety roses, Wm. Adair, Detroit, 2 00
do do indigenous flowers, Mrs. Jeremiah Brown, Battle Creek, 2 00

Best floral design, Mixer & Co., Detroit, 1 Vol. Horticulturist.

2d best do George Allmandinger, Ann Arbor, $2 00

Best hand bouquet, flat, Wm. Adair, Detroit, 2 00

2d best do do James Neldrett, Ann Arbor, 1 00

Best hand boquet, round, John Ford, Detroit, Beck's Botany of the United States.

2d best hand boquet, round, Miss Harriet U. Noble, Ann Arbor, 1 00

Best basket boquet with handle, Miss Harriet U. Noble, 2 00

The most beautifully arranged basket of flowers, Miss Emily Mixer, Detroit, 2 00

Design for a flower garden, James Neldrett, Ann Arbor, 3 00

The committee would here say that the ladies of Ann Arbor are entitled to great credit and praise, for the beauty and elegance displayed in the decorations of Floral Hall, by their own hands, and would recommend the following discretionary premiums be awarded to them.

To the Misses Clark and the young ladies of their school, for rustic cottage, 5 00

To Mrs. J. E. Wood and the young ladies committed with her school, for rustic arbor, 5 00

To the ladies of Ann Arbor, for Floral Temple, 5 00

The committee would also state that each of its members to whom premiums were awarded, did not participate in the distribution of those for which he was a competitor.

A. G. EASTMAN,
A. C. HUBBARD,
E. D. LAY,
S. B. NOBLE,
Com. on Fruits & Flowers.

VEGETABLES.

The committee on vegetables report in favor of awarding premiums on the following articles, to wit:

Best 6 stalks celery, Mixer & Co., Transactions.

Best 3 heads cauliflower, E. A. Platt, Ann Arbor, Liebig's Agricultural Chemistry.

3 heads cauliflower, John Ford, Detroit, Liebig's Agricultural Chemistry.	
3 best heads brocoli, John Ford, Detroit,	$1 00
12 white table turnips, Philo Parsons, Ann Arbor,	1 00
12 onions, John Ford,	1 00
2 purple vegetable eggs, John Ford,	1 00
12 sweet potatoes, L. W. Bodwell, Ann Arbor,	1 00
Best bunch double parsley, John Ford,	1 00
Vegetable marrow squash, Hubbard & Davis,	1 00
Best and largest pumpkins, Jacob Perkins, York, Gardner's Farmers' Dictionary.	
12 best ears seed corn, David M. Uhl, Ypsilanti,	2 00
Best half peck table potatoes, Jere'h Brown, Battle Creek,	2 00
Best and greatest variety of vegetables raised by exhibitor, S. B. Noble, Ann Arbor,	5 00

One purple vegetable egg, exhibited by W. T. Howell, (not for premium,) weighed 4 lbs. 7 oz., and was considered by the committee as the finest and best specimen of the kind. The seeds were obtained at the patent office, at Washington.

Several specimens of sweet potatoes were exhibited, consisting of several varieties, some of which were considered as a mixture, or much degenerated in texture and flavor from the original article. Those of a yellowish hue were considered the best, of which there were several lots equally good, but not brought in until after the examination of that article had been made.

One mammoth squash exhibited by David Depue, of Ann Arbor, was considered by the committee as a good article, and worthy of notice.

There were also exhibitors of beets, tomatoes and other vegetables, of extraordinary size, exhibiting the capability of soil and the congeniality of climate for vegetable productions of the kind; yet the committee did not find their flavor and texture equal to the specimens of medium size.

The committee, in conclusion, invite the attention of gardeners and horticulturists to the production of vegetables for exhibition that are fine and unmixed, and not deteriorated by mixture of seed or other causes, rather than the production of those of extraordina-

ry size, as being more suitable for the table, and exhibiting fairer specimens of the originl article.

All of which is respectfully submitted.

WM. T. HOWELL,
J. W. SCOTT,
JOHN FORD,
Com. on Vegetables.

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FIELD CROPS.

Best crop of wheat not less than two acres, Amos Hoag, Adrian, five and one-fourth acres, 241 42-60 bushels, medal and	$7 00
Best sample winter wheat, not less than one bushel, Wm. Dougherty, Berrien Springs, Tuscany wheat,	3 00
" acre broom corn: Edwin A. Platt, Ann Arbor,	3 00
" sample Indian corn, not less than one bushel, Chester Yost, Ypsilanti, dent corn, Transactions.	
" sample of flour, not less than 1 bbl., without regard to quantity of wheat used, George Millard, Dexter,	5 00
2d best sample of flour, D. D. Sloan, Base Lake, Washtenaw county,	3 00
3d best sample of flour, A. N. Hart, Lapeer, 7th Vol. Michigan farmer.	

All of which is respectfully submitted.

J. R. WILLIAMS,
GEORGE C. MUNRO,
WM. DOUGHERTY,
Committee on Field Crops.

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MISCELLANEOUS ARTICLES.

The committee on miscellaneous articles beg leave to report, that they made as thorough an examination of the two hundred and thirty different articles brought to their inspection, as they were in their limited time able to bestow.

Article No. 3, is a history of plants, of the imprint of 1598. It is a rare and valuable specimen of the art of printing, and the sci-

ence of botany and orthography at that early period. Its preservation reflects great honor upon its owner, and is deserving of honorable mention in the report of the executive committee.

A bottle of blackberry shrub, from Mrs. J. Palmer, Detroit, Allen on the grape.

Writing and indellible ink, A. W. Harrison, Philadelphia, Pa., diploma

Sad iron heater, D. O. & W. S. Penfield, Detroit, Transactions.

Stoves, Messrs. Penfields, Detroit, $5 00

Gentlemen's wigs, very superior article, Wm. Tate, Detroit, diploma.

Silk vest, Messrs. Hallock & Raymond, Detroit, Transactions and 1 00

Bedstead fasteners, a good article and worthy of general use, J. T. Wilson, Jackson, Transactions.

Two coats and 1 pr. pantaloons; they were elegantly made and worthy a diploma. R. Banks, Detroit.

Confectionary, the quantity, quality and style of all the articles was exceedingly good, Wm. Phelps, Detroit, diploma.

Corn brooms, a very superior article, E. A. Platt, Ann Arbor, diploma.

One bottle currant wine, rich and fine, Chas. Thayer, Ann Arbor, Allen on the grape.

A very superior lot of ladies' and gentlemen's wigs, Wm. Clay, Detroit, diploma.

Churn driver, a useful article, and we recommend it to favorable notice, J. D. Garlick, Lyons, Wayne county, New York, Transactions.

Spring bedstead, Sam'l Anderson, Comstock, Lenawee Co., Diploma,

Cider mill, a compact and useful article for small farmers and worthy of notice, J. M. B. Renwick, 3 00

Doors, James Summers, Ann Arbor, Transactions & 1 00

Painting and graining, Dean & Godfrey, Ann Arbor, Transactions, & 1 00

Lot of edge tools, Seth Hughes, Northville, Diploma.
Buggy wagons, H. M. Roberts, Adrian, do
Lot of clothing, Eagle & Elliott, Detroit, do
Six sides upper leather, H. Krause, Ann Arbor, $3 00
Copper and brass kettless, E. Shepherd, Detroit, Diploma.
One bench screw and one pump, Jas. S. Alvord, Adrian, Transactions.
An enormous piece of pork, Asa H. Otis, Detroit, prem.
Hub morticing machine, R. D. Roys, Ann Arbor, Transactions and 2 00
Horse shoes, Thos. Hall, Detroit, Diploma.
A seven shooter rifle, E. S. Ormsby, Ypsilanti, Diploma.
Cooking stove and copper boilers, C. S. Goodrich Jr., & Co., Ann Arbor, Transactions and 1 00
Four rolls leather belting, Ladue & Eldred, Detroit, Transactions.
Thick, pegged and fine boots, T. K. Adams, Detroit Diploma.
Horse shoes, E. Chope, Detroit, Transactions and 1 00
Piano forte, J. Bloynk, Detroit, Diploma.
Wilson's fire proof paint, Wm. Wilson, Brooklyn, Ohio, Diploma.
Telegraph instr'nt & battery, J. A. Bailey, Detroit, Diploma.
Pruning shears, Emery & Co., Albany, N. Y., Transactions.
Twelve sides sole leather, a very superior article, Geo. Kirby & Co., Detroit, Diploma.
One screw plate and 1 three inch chisel, made from Lake Superior iron, Pinney, Connable & Co., Jackson, Diploma.
Fruit ladder, Emery & Co., Albany, 1 00
Carriage and riding whips, L. S. Noble, Detroit, diploma.
Artificial teeth, G. P. Bennett, Jackson, do
One case of jewelry, Valentine & Cruwell, Detroit, do
Coarse pegged boots, J. T. Phillips, Northville, Transactions and 1 00
Rockaway carriage, W. W. Calkins, Leoni, diploma.
One piece galvanized gutter, E. Shepherd, do
Jenny Lind hack, James Cunningham, Rochester, N. Y., diploma.

One planishing and hammering machine, C. S. Goodrich & Co., Ann Arbor, diploma.

Letter copying press, F. Markham & Bro., Detroit, diploma.

The sample of card printing exhibited by Duncklee, Wales & Co., Detroit, was very beautiful, and we award to it a diploma.

Burt's Astronomical Compass is worthy a premium, and we the more cheerfully recommend it, as its distinguished inventor is a resident of our own State, diploma.

A very beautiful lamp shade, Mrs. Griffin, Detroit, $1 00

The apple-pareing machine, exhibited by a gentleman from Ohio, was a perfect thing in its way, diploma.

The Kyanized cordage, exhibited by J. T. Crooks & Co., of Maysville, Kentucky, exhibited superior workmanship, and is reported not to decay from exposure to the weather, diploma.

We recommend to James Smith, Detroit, for his pen of goats, a premium of 2 00

A bottle of currant wine, Charles Thayer, 1 00

A mineral mound containing 250 specimens of minerals, all correctly named and labeled, also a beautiful boquet of artificial flowers, Miss Sarah E. Owen, Grand Blanc, Genesee county, diploma and Downing's Cottage Residences.

O. C. COMSTOCK, Jr.,
CHAS. G. HAMMOND,
F. E. ELDRED,
MICH'L SHOEMAKER,
Committee on Miscellaneons Articles.

ESSAYS.

The committee beg leave to report that in consequence of the late period at which the essays were placed in their hands, it has been impossible during the Fair, to give them that attention which their authors would be entitled to expect, and the importance the subject demands.

They have however, read the essays presented on the cultivation of

wheat, (three in number,) and report that Warren Isham is entitled to the premium of $15 00. On the other subjects, they ask the indulgence of the committee and the public for a short time, and when ready, they will announce their decision.

J. HOLMES AGNEW,
J. SHEARER,
Committee on Essays.

September 26th, 1850.

The Committee on Essays, beg leave further to report that having perused four essays on the cultivation of Indian corn, they unite in awarding the premium of $15 00 to the essay presented by J. F. Chubb, Grand Rapids, Kent county. It is characterized by brevity, method and judicious observation. The other three contain much correct and valuable information.

On the culture of potatoes, the committee award the premium of $15 00 to the essay written by S. H. Preston, Marshall, Calhoun county. But one other was offered.

On the raising of Sheep, only one essay was offered, which, whilst it contains many wholesome truths, is so prolix and in other respects so defective, that the committee do not feel at liberty to award to it the premium.

An essay on the proper improvement and enjoyment of country life, written with taste and truth, by Bela Hubbard, of Detroit, is well entitled to the premium allotted under the fifth head, to wit:—Best essay on any other subject connected with agriculture, $15 00.

The essay on the culture of fruit, by J. G. Morse of Ann Arbor, although not written in a style adapted to publication, is quite a treatise on the subject, and is not devoid of merit.

IRA C. BACKUS,
J. HOLMES AGNEW,
J. SHEARER,
Com. on Essays.

October 12, 1850.

ON FARMS.

The committee on Farms make the following report:

For the best cultivated farm in each county, the following awards have been made, full reports of each being on file in the office of the Secretary, at Detroit:

For the best cultivated farm in Calhoun county, the society's diploma is awarded to S. G. Pattison, of Marengo.

For the best cultivated farm in Kalamazoo county, the Society's diploma is awarded to Godfrey Knight, of Schoolcraft.

The farm of Wm. H. Edgar, of Texas, Kalamazoo county, is highly recommended by the committee.

For the best cultivated farm in Lenawee county, the society's diploma is awarded to Amos A. Kinney, of Seneca.

For the best cultivated farm in Monroe county, the society' diploma is awarded to Samuel Bartlett, of Lasalle.

For the best cultivated farm in Macomb county, the society's diploma is awarded to Dayne K. Leech, of Shelby.

For the best cultivated farm in Oakland county, the society's diploma is awarded to Linus Cone, of Troy.

For the best cultivated farm in Wayne county, the society's diploma is awarded to J. Shearer, of Plymouth. Also to J. Shearer is awarded, for statement of products of garden, Beck's Botany.

Statements of Exhibitors.

NEAT CATTLE.

EDWARD BELKNAP'S STATEMENT.

The first premium for the best short horn bull was awarded to Edward Belknap, of Henrietta; Jackson county; also the first premium for the best short horn cow, and the best yearling heifer.

The following is the description and pedigree of these three fine animals:

The thorough bred short horn bull, American Comet, in color, is pure white. He was bred by George Vail, Esq., N. Y., and purchased from him by Mr. Belknap; was calved 4th August, 1847; dam, imported premium cow, Hilpa; sire, premium bull, Meteor. The cow Hilpa, was selected for Mr. Vail by the late Thomas Bates, of Kirkleavington, Yorkshire, England, and sent out to the United States. Hilpa and Meteor have each taken the first premium at the New York State agricultural fair.

Hilpa was got by Mr. Bates' Duchess bull, Cleveland Lad, (3467, English Herd Book,) out of Hawkey, (page 433, English Herd Book,) volume 6th, by Red Rose Bull, (3493,) Hart by Rex (1375,) bred by Mr. Richardson, of Hart, from an old and celebrated milking tribe of short horns. (See Allen's American Herd Book, page 185.)

The thorough bred short horn cow, Esterville, 2d, was bred in England, by Mr. Whitaker. Her dam, Esterville, 1st, was imported by Mr. E. P. Prentice, of Albany, and a few weeks after her arrival the cow Esterville, 2d, was calved in 1841; she was sired by Dan O'Connell, (3557, English Herd Book;) dam, Esterville, 1st, got by Alfred, (2987 English Herd Book,) out of Amethyst, by Prince of Northumberland, (4826;) Young Amazon, by Crusader, (934;) Amazon, by Sultan, (1485;) Belona, by Mars, (411;) Rola, by North Star, (458.)

The bull Alfred, was purchased by Louis Phillippe, King of France.

The thorough bred short horn yearling heiter, Bellflower 3d, was bred by George Vail, Troy, N. Y., and purchased from him by Mr. Belknap.

Bellflower 3d, was calved 7th August, 1849; dam, Bellflower 1st, bred by the late General Stephen Van Rensselaer, of Albany; sire, premium bull Meteor; (see Allen's American Herd Book, 104) Bellflower 1st, was got by Gen. Van Rensselaer; bull Ajax, dam Diadem, by Washington, (1566, English Herd Book;) grand dam, Pansey, by Blaze, (76, English Herd Book;) great grand dam, Primrose, by Charles, (127;) great gr. grand dam, by Blythe Comet, (85;) great gr. gr. grand dam, by Patercot, (486.)

EDWARD BELKNAP.

Henrietta, Jackson Co., January, 1851.

Pedigree of A. S. Brooks' Stock, exhibited at the Society's Show in September, 1849.

CADMUS.—He was sired by Cadmus, imported by Edward Leroy, Esq., a full bred, short horned Durham. Young Cadmus' dam was Betsey Blossom. She was sold to Wm. Wadsworth, Esq., at eight years old, for $137 50. She has taken more 1st premiums than any cow in the State of New York. Further, it is universally admitted that her descendants have done more to improve the stock of cattle in Livingston county, than any other cow, she being the mother of eleven bulls in succession, as follows: Rover, Defiance, Splendor Napoleon, and the bull known as the "York" or "Root Bull" and Cadmus. The next calf was altered, and is now four years old. The owner was offered $150 for him at that age, and would not take it. The next calf was "Young Rocket;" he is as fine a bull as the State can boast of.

CERTIFICATE.

I certify that I raised "Betsey Blossom," and sold her, at eight years old, to W. W. Wadsworth, and that she is dam of all the bulls named in the pedigree of Cadmus, and that the pedigree is a true one; and if any gentleman wishes to ascertain the fact of what I

say, he can do so, by inquiring of James S. Wadsworth, Asa Knowlen, Roswell Root, Major Spencer, Aaron Barber or any other cattle breeder in Livingston county.

DAVID BROOKS.

AVON, N. Y., Sept. 16, 1849.

CERTIFICATE OF THE TWO RED CALVES ACCOMPANYING CADMUS.

The bull was calved May 2, 1849, and the heifer April 12, 1849, They were both sired by Cadmus. The bull calf has been fed; the heifer calf has sucked a cow that was not worth milking, on account of a spoiled bag. The dam of the red bull calf was sired by Defiance, and the heifer calf by Splendor, grand dam by Napoleon, all pure stock.

PEDIGREE OF RED ROVER.

He was sired by Cadmus, (Cadmus by the thorough-bred bull Cadmus, imported by Edward Leroy of N. Y.,) Rover's dam was by Beauty, sired by Defiance, Defiance by a thorough bred bull imported by Thomas Weddle of Rochester.

PEDIGREE OF RED ROSE.

Red Rose was sired by Cadmus, her dam by Splendor—a thorough bred Durham, imported by Thomas Weddle, Grand dam, by Napoleon—all pure bred stock.

Stock exhibited by A. S. Brooks, September, 1850.

PEDIGREE OF RANGER.—He was calved May 18th, 1849; his dam was Cleopatra; Cleopatra was sired by the famous bull Splendor, Splendor was sired by Rover; Rover was imported by Thomas Weddle, Esq., of Rochester, N. Y.; Ranger was sired by Oregon, a thorough bred bull, bred by Mr. Carter, near Utica, N. Y.

PEDIGREE OF BEAUTY.—She was calved in October, 1849, sired by Cadmus; Cadmus was sired by the imported bull Cadmus. Her dam was sired by Defiance, her grand-dam by Young Napoleon; Napoleon was sired by old Napoleon, from thorough bred stock imported by Col. Dwight of Massachusetts.

"Red Rover" and "Red Rose," were sold to Mr. Austin, of Plymouth, in 1849, and exhibited by him at the society's show in 1850.

Since the show of 1850, "Ranger" and "Beauty" have been sold to J. G. Leland, Esq., of Northfield, Mich.

A. S. BROOKS.

Novi, Mich., November 11th, 1850.

We certify that we raised the above named cattle and that their pedigree is correct.

M. L. BROOKS,
DAVID BROOKS.

Avon, N. Y., Dec. 12th, 1850.

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H. E. DEGARMO'S STATEMENT.

My cow "Victoria," was ten years old last March; she was from a Native cow, and sired by old "Splendor;" she calved the 11th of April. From the 10th to the 20th of June, she gave 530 lbs. milk, the largest quantity in any one day being 62½ lbs. From the 1st to the 20th September, she gave 434 lbs., the largest quantity in any one day being 48 lbs.

In consequence of a scarcity of feed, occasioned by a severe drouth, she gave about ten lbs. less per day, this summer, than she gave last summer. During the ten days in June, she made 26 lbs. of butter—in September, 20 lbs.

In June there was used for the purpose of keeping the milk sweet a sufficient length of time to allow all the cream to rise, two teaspoonsful of soda, dissolved in half a pint of boiling water, and a tablespoonful put into eight quarts of milk. The pans were placed in large vessels, and ice put around to keep the milk cool. The cream only was churned, or perhaps a small quantity of the top of the milk with it. It was churned in an old fashion dash churn. The butter was salted without reference to weight or measure, being governed by the judgment of the maker. A teaspoonful of loaf sugar, to 4 lbs. of butter, was used with the salt.

In September the milk was set in the usual mode, and the cream taken from it without any foreign substance being added. It was churned and salted as in June.

H. E. DEGARMO.

Ann Arbor, Sept. 25, 1850.

AMOS MEAD'S STATEMENT.

To the Sec'y of the Mich. State Agricultural Society:

DEAR SIR:—I offer my yearling heifer, of native breed, for exhibition. Said heifer was one year old between the 15th and 20th of April last. She was taken from the cow at about eight days old, and fed on skim milk thickened with crumbs of wheat bread, for about six weeks, after which she was fed on sour milk and shorts, till about the first of September, then put into good feed and fed on bran and shorts through the winter. Since spring feed, she has had nothing but grass.

AMOS MEAD.

PLYMOUTH, Sept. 23, 1850.

SHEEP.

SYNOPSIS OF THE DIFFERENT BREEDS OF SHEEP—BY JONATHAN SHEARER.

	Av. w't of fleece.	Av. w't of weather's quarters.	Y's old w'n killed.
Heath Breed, Large horns, black faces and legs. coarse long wool,	3½	14	4½
Exman " horned, white faces and legs, long wool,	4½	15	2½
Norfolk " large horns, black faces and legs, fine short wool,	3½	18	3½
Wiltshire " horned, white faces and legs, sh't & mod'ely fe w'l.	2 3-4	20	3
Dorcestshire breed, small horns, white faces and legs, fine short wool,	3½	18	3½
Dishley " palled, do long wool,	6	22	2
Lincolnshire " do do do	9½	25	3
Romney Marsh b'd do do good quality of wool,	7	24	2½
Tees Water " do do do long wool,	9	28	2
Dartmon Natts " do do do do	8	22	2½
South down " do gray faces and legs, very fine short wool,	3	18	2
Cannock Heath " do do short fine wool,	2½	20	3½
Herfordshire " do white faces and legs, do	2½	14	4½
Improved Leicester, do do long do	9	25	2
Pure Merino breed, horned, do short, very fine wool,	3½	10	6
Saxon " " do do " thin, do	2½	10	6

The above varieties of sheep, with several other kinds that might be nam'd, which is deemed not necessary at present, from the fact that the above constitute the principal grades now raised in Europe and the United States. And the above table will show a marked difference in the amount of wool and mutton with the early or late maturity; and from these breeds are springing up continually, different grades of sheep. The greatest obstacle to the profitable sheep husbandry in this country, is as follows: That the best of the flock is sold off continually, leaving the feeble to brood from. Another grand difficulty, the flock is increased beyond the food necessary for its sus-

tenance, while at the same time the term *fine wool,* swallows up every other consideration in sheep growing. The common sense principle must teach, that sheep will deteriorate by bad management, as well as anything else. As for fine wool, it is well known that there is more grown than is profitable to the manufacturer or consumer. At the present time there are in the United States, one hundred persons to one, who wear the coarser cloths, from choice, from their cheapness and durability. And it is well known also, that the fine graded sheep are not so hardy as those of the longer wooled kind. Hence, that kind of sheep which will afford the longest staple of wool of a fine quality all over the body, with a large, well made frame, hardy constitution, and fatten early and kindly, with mutton of sweet flavor, on the least keep, is the most profitable to the farmer.

It is within the reach of every farmer to obtain this grade of sheep, by selecting a few of the improved Leicester sheep, and crossing them with the best of his flock, and continue so to do, and his flock will, if well fed, soon become all that he desires; or if the improved Leicester could not be easily obtained, select the best of the flock to breed from. But in no case allow the lambs to go with the buck the first year, as it diminishes their growth.

The climate and soil of Michigan is admirably adapted to sheep growing, and as the increase of the population of the State, and of the United States, will for a long time, be greater than that of the incease of the sheep and wool, for the comsumption—the prospect of the sheep grower is highly encouraging; and if rightly and prudently managed, will afford a very pleasing and profitable branch of business to the farmer. The future market for wool, may be estimated as follows: The returns of the census of 1840, show the number of sheep in the United States, a fraction less than 20,000,000; twice this number would probably not furnish more wool than would be needed by a population of 17,000,000 if we were to manufacture all our own blankets, carpets, and every other description of woolen fabrics. The period is not very distant when this will undoubtedly be done, with the exception of some very fine goods; we shall then need about 100,000,000 pounds of wool for a population of 17,000,000, and in that proportion for home consumption, even supposing none should be exported. Now as our population increases, as past experience

demonstrates, at a compound ratio of three per cent per annum, we shall have a population of 34,000,000 in the year 1864, 51,000,000 in 1878, and 60,000,000 in 1888. We shall need at these respective periods, two, three, and four hundred millions of pounds of wool. If we estimate sheep upon an average to produce 2½ lbs., of wool per head, we shall require in the year 1888, 160,000,000. This view of the subject, without looking to a foreign market, holds out a strong inducement to engage in sheep husbandry.

This sheet might be extended to great length, in showing the different grades of sheep found in Asia, Africa, and other parts of the world, at an early period, in their native state, and the improvements made on them, by *cross*, and *care*. But as this is a matter of history, it is thought best not to enter upon it here, but merely to make suggestions in a short and comprehensive manner, directing the mind of the careful reader to the most prominent ideas connected with sheep husbandry, which may in turn, beget new ideas on this important subject, the result of which will advance the general weal, is the profound desire of your friend and obedient servant,

JONATHAN SHEARER.

Hon. J. C. HOLMES, Sec'y Mich. State Ag. Society.

JOHN D. PATTERSON'S STATEMENT.

J. C. HOLMES, *Esq., Sec'y Mich., State Ag'l Society:*

In compliance with your request, I send you herewith an account of my flock of Merino sheep. My flock numbers over eight hundred, all PURE blooded Merinos. The most of them are of Spanish origin, and crosses of Spanish and French; but I have a small flock of full blooded French, which I obtained from France the present year.

The sheep I presented at the Michigan State Fair, last fall, are one year old, were raised by myself, and are PURE blooded Merinos. Their dams are the decendants of those imported from Spain by Hon. Wm. Jarvis, of Vermont, Gen. Humphrey, of Connecticut, Chancellor Livingston, of New York, and others, and the buck that sired them was imported from France in July, 1848, and is the one represented in the accompanying engraving.

The Spanish Merino sheep are so generally known that I will not

attempt to give a full description of them at this time. They are better adapted for wool growing purposes than for mutton; however, crosses of them with the large English breeds, or with the old native sheep of our own country, acquire flesh rapidly and make a very good sheep for the butcher; but in the vicinity of large cities and towns where there is a good market, and mutton is the principal object desired, the large English sheep, the South-down, the Leicester, &c., are undoubtedly preferable.

Although it is a long time since the Merino sheep were first introduced into this country from Spain, yet the number of pure, unmixed sheep of this breed, will fall very far short of what is generally supposed by those who have never investigated the subject; for although they are carefully bred, and increased for quite a number of years, until there were many superior flocks in the New England States, still, when the Saxons were first introduced, they, having finer wool, were supposed to be the most valuable; consequently those having the best flocks of pure Merinos, with but very few exceptions, bought Saxony bucks at high prices, and crossed them on their flocks; and, before they were aware of the result, their flocks were nearly destroyed. They had, to be sure, gained a trifle in the fineness of the staple of wool, but that was more than overbalanced in the decrease of its length and weight of fleece, as well as being attended with a loss in the size of the sheep, together with the shape, hardihood and strong constitution possessed by the pure Merinos. The most of the breeders became convinced of their error, and endeavored to recover from it by disposing of the Saxony bucks and again using the Merino; and, while such a course would have a tendency to be constantly improving their flocks, yet they never can get them back to what they were originally, before the infusion of Saxony blood.

The Merinos that have lately been imported from France, are undoubtedly of Spanish origin; but having been skillfully bred for a great number of years, for the purpose of obtaining certain desirable qualities, have now become so completely changed in their general character and appearance, and so far excel the original stock from which they sprung, that they appear almost like a different race of animals. They are of much larger size, and possess still hardier con-

stitutions. Their wool, which is of about the same quality, is much more compactly set on the skin and covers the entire body, yielding a thick heavy growth on the bellies as well as their sides and backs; which, also extends down their legs to their hoofs, and frequently their faces and eyes, leaving only the end of the nose bare. Besides being of larger size, many of these sheep have enormous folds of skin around their necks and shoulders, and on some of them, these wrinkles encircle the whole body, giving them a very large surface to shear over; which, in connection with their wool being so remarkably thick and compact, makes them capable of yielding enormous fleeces, much more even in proportion to their size than any other sheep I have ever seen.

However, there is a great difference in those that have recently been imported from France, both in quantity and quality of wool. While some of them approach nearly to the Saxons for fineness, there are others that are coarser than the Spanish Merinoes will average, and some of them are inclined to have coarse hair on the wrinkles and sometimes on the hips, and there is also, as great a difference in the weight of their fleeces. When I select stock sheep to breed from, I endeavor to embrace as many good qualities as possible; and, as it is unreasonable to expect ALL the desirable points combined in any one animal, I have generally been obliged to take the medium ground. I want a good quality of wool, and am not satisfied without it; but at the same time, I dare not carry that point too far, for by so doing, I should expect to loose constitution, and weight of fleece, both of which I consider all important considerations. I do not believe an exceedingly fine wooled sheep will ever prodcce an extremely heavy fleece. One of these qualities is invariably obtained at the expense and loss of the other. However, on the weight of the fleece, much depends on the keeping of the sheep, (as well as in the breed,) and whenever I hear of an unusually heavy fleece, I at once conclude that it was taken from a sheep that was in good condition, and had been well kept throughout the year. The sheep represented in the accompanying engraving, were sheared as there stated; and they were washed so thoroughly there was nothing left in the fleece but CLEAN wool, and they were sheared as soon they were dry, but they had been kept as well as I knew how to keep them, from the time they

were imported until they were sheared. I have known ewes of this stock to shear as high as twenty-five pounds of unwashed wool, though this is unusual.

Their wool does not contain as much gum and oily matter as the Spanish Merinoes; therefore, it shrinks much less by being cleansed for the manufacturer. I think a flock of these sheep would average over ten pounds of wool well washed on their backs.

The crosses of the French and Spanish sheep bear a very close resemblance to the French stock, in size, shape, constitution, weight of fleece and general appearance; and they seem to embrace about all the good qualities that can be expected in sheep, for wool growing purposes, and as some of mine at 18 months old, weighed over 200 pounds, it would also seem that they might answer very well for the butcher, as their mutton is said to possess an exceedingly fine flavor, and by many preferred to the mutton of the South Down sheep.

My yearling bucks of this kind, sheared from 9¼ to 18½ lbs, unwashed, and my yearling ewes from 6 to 9¾ lbs. of fine and very cleanly washed wool, which sold the present year for 41 cents per pound; and it would probably sell at this time, from 48 to 50 cts. per pound.

JOHN D. PATTERSON.

Westfield, Chautauque Co., N. Y., Dec. 20, 1850.

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SWINE.

W. G. GOODWIN'S STATEMENT.

Gentlemen of the Committee:

I brought along a boar pig, more as a specimen of a well bred swine than with an idea of competing for the premium, being aware that he was not old enough for a regular premium.

He is three-fourths Leicester and one-fourth Byefield. He was born the 11th of July. His sire is a Byefield and Leicester boar, owned by Mr. Heath, of Tekonsha, Calhoun county, which took the prize at our county fair last year. The old sow is 16 months old, full blooded Leicester.

The characteristics of the breed are: 1st. Great length of body. 2nd. Great depth. These two qualities combined make a large amount of side pork. 3d. They are large boned and afford good

hams. They can be made very fat and stand up, which is not the case with many of the smaller breeds. 4th. They are perfectly gentle, perfectly white, and *fat easily at* ANY *age.*

They are much thought of in our county, and bought at almost any price not too extravagant. I was offered $20 for my pig at the barn. I believe I have given the principal characteristics. My pig has not had extra keeping, having run with the sow and had nothing else until seven weeks old, when I took him off and gave him milk with a few kernels of corn, occasionally. The breed when well fattened, weigh 300 at six months, 600 at eighteen, and from 800 to 1000 at 2½ years.

Yours respectfully,

W. G. GOODWIN.

Ann Arbor, Sept. 26, 1850.

AMOS HOAG'S STATEMENT.

State of Michigan, County of Lenawee, ss.

Amos Hoag, of the village of Adrian, being duly sworn, deposeth and saith that about the tenth day of September, A. D. 1849, he had prepared and sowed to wheat on his farm, in the township of Adrian, in the county and State aforesaid, five and one-fourth acres of land. One half of said land, as deponent believes, was manured some five years since, and the other half has never had any manure carted on it to the knowledge or belief of this deponent. The said land was summer-fallowed, and at the time it was broke up was used as a pasture—that this deponent sowed one bushel and a half of wheat to the acre at the time aforesaid.

And this deponent further saith that said wheat was harvested, threshed and weighed by this deponent—that the most of said wheat was drawn to the "Adrian Mills," and there weighed, and the balance weighed by this deponent at his barn on the said farm. That said five acres and one quarter produced two hundred and forty-one bushels and forty-two pounds of wheat. The field on which said wheat grew was not gleaned.

Subscribed and sworn before me, this 23d day of Sept., 1850.

AMOS HOAG.

State of Michigan, County of Lenawee, ss.

Ezekiel D. Webb, of the township of Adrian, being duly sworn deposeth and saith, that he has read the foregoing affidavit signed by Amos Hoag, and knows the contents thereof—that this deponent worked with said Hoag in the sowing of said wheat, helped harvest, thresh, and was present when the same was weighed, and knows that the statements made in said affidavit by said Hoag in relation to the quantity of ground and number of bushels of wheat to be correct and true.

Subscribed and sworn before me, this 24th Sept., 1850.

EZEKIEL D. WEBB.

—

WHEAT.

WM. DOUGHERTY'S STATEMENT.

DEAR SIR:—You having received a sample of my Tuscany wheat, and having expressed your opinion as to its being a superior variety, and also wishing me to give you a short history of the same, the request is cheerfully complied with.

Five years since, I received from the Patent Office, half ounce of Tuscany Wheat.

1st year, *planted* in my garden, and obtained 16 ounces.

2d year, sowed on a bed 20 by 40 feet; result, five sheafs or half bushel.

3d year, sowed on three-fourths of an acre; result, eighteen bushels.

4th year, sowed 18 bushels on 13 acres; average crop, 25 bushels, or 325 bushels.

5th year, or the present year, I have taken much pains to ascertain the amount harvested by my neighbors and myself, and the result is 20 bushels for every bushel sowed of the 325 bushels, or 6,400 bushels. At this ratio, in ten years, it would *probably* sow all the cultivated land in this or any other State in the Union. It is white wheat and *probably* the largest berry for *white wheat* grown on the Globe; it is ball or smooth, a thick chaff, consequently not liable to grow on the stalks from long rains, hard to thresh of course, but little lost in gathering or handling. Straw white and stout; not lia-

ble to fall from wind, or broken by hail—flour very white, and bread spungy and soft as velvet. I would remark, to have the grain to come in very white, it should be sowed on summer fallow, or any ground not subject to blue grass or timothy.

Yours respectfully,

WM. DOUGHERTY.

Berrien Springs, Sept. 22.

—

INDIAN CORN.

J. F. CHUBB'S STATEMENT.

Gentlemen Judges on Grain Crops:

I would respectfully report the product of one acre of corn raised the season past, measured from a field of about 10 acres. The yield was 158 bushels of ears. Two bushels of ears were shelled, and the corn weighed 57 pounes, making 80 23-56 bushels to the acre. The corn was the eight rowed white corn.

The field was green sward, formerly clover, but the clover nearly run out; soil, sand and gravel, some portion of it a very coarse gravel and small stone. A slight coating of manure, of from ten to fifteen loads to the acre, was spread over it before breaking up, and plowed between the 1st and 15th of May, and harrowed lengthwise of the furrow, and planted between the 19th and 24th of May, in rows 3½ feet each way, with from 4 to 6 kernels in each hill. When up about two inches, a mixture of one part plaster to two of ashes was put on at the rate of about one-half gill to the hill. It was then cultivated out both ways with the cultivator, and after, dressed out once with the hoe. When about a foot high, it was again cultivated out each way, twice in a row, which was all the labor expended, until harvesting.

The average product of the whole field was nearly equal, yielding as nearly as could be ascertained, 80 bushels to the acre. The plowing was done with a double or sub-soil plow, eight to eleven inches deep. Harvested, by cutting up at the ground.

J. F. CHUBB.

Grand Rapids, Kent Co., Sept., 1850.

The foregoing statement sworn to before me, this 7th day of January, 1850.

S. M. PEARSALL,
Justice of the Peace.

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BROOM CORN.

STATEMENT OF EDWIN H. PLATT.

This is to certify that I have cut and thoroughly cured one eighth of an acre of my Broom Corn, which weighed one hundred and twenty-five pounds. This I think will be a fair average of the ten acres.

EDWIN H. PLATT.

PITTSFIELD, September 25th, 1850,

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APPLES.

NORTH PLAINS, IONIA CO., }
September 19, 1850. }

President of Detroit Hort. Society:

DEAR SIR—I have taken the liberty to send by the bearer (Mr. Hedden,) three apples, which grew on a tree now eight years from the seed, and this year bore over 1½ bushels of apples,) as a specimen of the fruit. It ripens, or is good for eating in December; flesh is brittle, rich flavor and tart; some of my friends thought it worthy a name; if you think so, please act, and send me the result, and much oblige a friend of improvement.

H. F. BAKER.

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FIRE AND WEATHER-PROOF PAINTS.

BROOKLYN, CAYAHOGA CO., O., }
November 25, 1850. }

J. C. HOLMES, Esq., *Sec'y of Mich. State Ag. Soc:*

Dear Sir—The paint exhibited by us is found in a natural state, in Brooklyn, Cayahoga Co., Ohio. When first taken from the *mine* it is of the consistence of softish stone, or cake of chocolate; upon exposure to the atmosphere it slakes into finer particles. It is of a beautiful chocolate color, or resembling nearly the Jersey freestone,

which is the most fashionable color of the day for sides or roofs of buildings. It is manufactured to a very fine powder and bolted through a superfine bolt; consequently it needs no preparing but to mix with linseed oil, and be applied with a brush, the same as other paints. After an exposure to the atmosphere for a few months, this coating becomes a solid cement or artificial slate, which is impervious to fire or weather. It is now being extensively used for painting both sides and roofs of buildings, and is decidedly the best paint now in use for brick or stone, entirely preventing those kind of buildings from absorbing water, and consequently rendering them free from dampness; also for painting steamboat or vessel decks, rail road depots, cars and bridges, or any thing that is exposed to fire or weather; also used for carriage and other paintings, and is susceptible of receiving a very high polish, and never cracks. One hundred hundred pounds will cover 33 feet square, or nearly 1,000 superficial feet.

The component parts of the above paint are large proportions of red oxide of iron, and smaller proportions of allumnia, lime and carbon. The above paint was discovered and brought into use by David Wilson, and is manufactured by Wilson & Co., Brooklyn, Cyaghoga Co., O.

Yours,

WM. WILSON & CO.

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CLINTON, October 16th, 1850.

I find in this locality 110 varieies of grass, indigenous to this State. Of these 9 are annual; 20 of the perennial, grow on a dry soil; 30 are found in moist situations; the remaining 51 occupy situations that are submerged a part of the year, except some 3 or 4, which grow in the water.

Yours respectfully,

R. RANDALL, Jr.

—

KAYANIZED CORDAGE.

Messrs. J. T. Crook & Co., of Maysville, Kentucky, having been awarded the Society's Diploma for Kyanized Cordage exhibited by

them at the Society's second annual fair, have furnished the following statement:

By the new method of working hemp unrotted, this staple can be as well grown in the northern States as in Kentucky and Missouri. Some is now grown in Ohio, Indiana and Illinois, and it was lately stated in an Iowa paper that some persons had succeeded in producing fine crops in that State. The great difficulty in growing hemp in the northern States heretofore has arisen from the rotting and breaking out by hand, requiring a great deal of labor during the winter season. By selling to the rope and bagging factories in the straw unrotted, to be there broken out as well as manufactured by machines, this difficulty is entirely removed and a crop of hemp can be grown here as easily as a crop of oats, and the only thing now remaining to be done to enable our northern farmers to add to their list of desirable and profitable crops is the establishment of factories for the manufacture of unrotted hemp into cordage and such coarse fabrics as hemp is used for.

The establishment of Messrs. J. T. Crook & Co., at Maysville, Ky., turns out the Kyanized Cordage now being extensively used on the lakes for rigging, and which answers an excellent purpose. The inventor of the various machines and processes used for manufacturing hemp in this condition, Dr. O. S. Leavitt, of Maysville, and one of the partners of the firm of J. T. Crook & Co., advertises that he is ready to build such machinery for such as may desire it. It is claimed that rope can be manufactured in this way much cheaper than in the usual method, while it stands exposure to weather without decay, and thus coming into use as a substitute for manilla, it bears a higher price in the market than any other hemp rope. It would appear then, that the manufacture must be profitable. It is a question which certainly deserves the attention of capitalists and business men.

As some persons may desire to try the experiment of hemp growing, the following directions may be of service:

The best soil for hemp has limestone substratum, rich, friable and deep. Hemp will do after corn, but better after small grain or potatoes, and better still on clover sod that has been turned under in the fall or winter. It should not be newly manured nor low and flat,

Sow early in May a bushel and a peck of seed to the acre, and harrow in, or if the ground is rather dry, use a cultivator or "shovel plow." Cut in August with a hemp-hook or hemp-cradle, using the latter only when the hemp does not exceed six feet in height. It often runs up ten feet and even more. When the leaves on the male or blossom hemp begins to turn yellow and fall off, cutting may commence, the seed hemp being still green. Spread out on the same ground to dry, when it may perhaps get one or two showers, then take up before it gets much darkened and tie in convenient bundles, beating off most of the leaves with a stick.

It is now ready to stack or rick. It may be spread out to rot like flax, late in October. If spread too early, the warm rains will be likely to weaken the fiber. It may be taken up during the winter in dry weather, and set up in "shocks," when it is ready for breaking. It may be turned over once or twice after being spread out to rot, and care should be taken to have it secured at the right time; so soon as the fiber separates easily from the wood and before it becomes tender by decay. Snow is very favorable to hemp-rotting, making it much brighter in color, than when it gets no snow. It often happens that long continued wet and warm weather occurs about the time when hemp is sufficiently rotted, and becomes decayed and very dark before weather is suitably dry for taking up. This was the case in Kentucky, in the winters of '48–9, and '49–50; when the hemp lost much weight and wasted from being too rotten, upon the brakes. It is estimated that from these causes, about one third of the hemp crop was lost both the years alluded to; while the hemp saved, was of a very inferior quality. By working unrotted, the same crop will produce about 10 per cent. more than by rotting.

The hemp grown for the lint, produces some little seed, which, from not being allowed to mature, is worthless. To grow hemp seed, plant on rich, well manuered land, in hills 5 feet apart, say 5 to 7 seeds in a hill; which, cultivate like corn, allowing only 3 of the most thrifty to mature; cut the male or blossom hemp out so soon as the pollen has ceased to fall from the blossoms, that the female or seed hemp (containing generally about two thirds of the whole quantity,) may the more perfectly mature the seed. Cut after a frost, and in damp weather move to a ground floor; where, in a dry day, it may

be beat out against a rail or plank fixed for the purpose, and when QUITE DRY, secure in open casks or boxes, safe from rats. It is supposed that the dampness to which seed is liable, is the chief cause of that mildew or other malady which renders it nearly worthless, when more than a year old. Hence the care that it should be kept quite dry, to keep it in good condition even for one year. Old seed is quite uncertain.

Hemp is not at all exhausting to the soil, and the best hemp farmers are in the habit of keeping the same ground in hemp for many years without change.

The hand-brake for hemp is similar to a flax brake, but longer, and a man can brake from one hundred to two hundred pounds a day—one hundred pounds is the customary task for a slave. Hemp seed is now worth about a dollar per bushel, though it can be grown for 25 cents. It constitutes a most excellent and cheap food for fowls, and every farmer could gorw some of it to advantage. Much of it is sold in cities for bird seed, though it is apt to be too old to be relied on for sowing.

About seven hundred pounds of hemp lint to the acre is considered a fair average crop. When sold unrotted, it is often sold by the acre, and sometimes by the estimated quantity it would produce when rotted, of course commanding a much less price than when rotted and broken out. From 1200 to 1500 acres would supply a rope factory, capable of producing 1½ tons of cordage a day. The shires make ample fuel when a steam engine is used in place of water power. Such a factory would require a capital of from thirty to thirty-five thousand dollars.

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FARMS.

The judges on farms, in the county of Calhoun, have examined in said county, two farms; and deem the farm of S. G. Pattison, of the town of Marengo, worthy a premium, and beg leave to refer to the accompanying statement of account, and diagram of farm furnished us by Mr. Pattison.

O. C. COMSTOCK,
ZENOS TILLOTSON,
Judges.

Ann Arbor, Sept. 27, 1850.

S. G. PATTISON'S FARM.

My farm is situated in the town of Marengo, Calhoun county. It contains two hundred and forty acres of land, being one hundred and sixty rods north and south, and two hundred and forty rods east and west. The buildings are situated near the north end, on a main travelled road leading from Marengo to Homer. The farm was located of government, in 1833, by its present occupant; it is one mile south of the Kalamazoo river, from which there is a gentle assent to near the centre of the farm, which is about one hundred and thirty feet above the bed of the river. The land is burr oak and hickory plains. Good water is obtained by digging from five to fifteen feet. As the farm is laid out, there is living water on nearly every lot.

ACCOUNT OF THE PRODUCTS OF THE FARM.

Lot No. 1, containing 16½ acres, in corn and potatoes.

DR.

To man and team 8 days, ploughing,	$12 00
" man and horse two days to mark out ground,	2 00
" man 5 days, planting 14 acres with corn,	3 13
" man 3½ days, planting 2½ acres with potatoes,	2 63
" 14 bushels seed potatoes,	3 50
" 2 " corn,	1 00
" 24 days work, hoeing corn and potatoes twice,	13 00
" man and horse 12 days, to plow corn and potatoes,	12 50
" 13 days work, cutting corn,	9 75
" digging potatoes,	18 75
" husking corn,	25 50
	$103 76
Profit,	277 24
	$381 00

CR.

By 924 bushels corn,	231 00	
" 750 " potatoes,	150 00	
		$381 00

Lot No. 2, contains 1½ acres; fruit orchard.

CR.

By 5 bushels Isabella grapes, used in family and given to friends.

To 300 bushels peaches, used in family, given to friends and fed to hogs.
" 40 bushels plums, disposed of as above.

Lot No. 3, contains 4½ acres, in orchard and meadow.

DR.

To mowing,	$3 00
" man ond horse ½ day, raking hay,	75
" hauling and putting hay into the barn,	5 00
	$8 75
Profit,	166 25
	$175 00

CR.

By 10 tons hay,	$50 00	
" 300 bushels apples, all engrafted fruit,	125 00	
		$175 00

Lot No. 7, contains 15½ acres of pasture, and has been pastured through the season.

Lot No. 8, contains 17½ acres of pasture, and has been pastured through the season.

Lot No. 9 contains 22 acres of meadow.

DR.

To mowing,	$11 00
" man and horse 2 days to rake,	2 50
" drawing and putting hay into the barn,	12 00
	$ 25 50
	134 50
	$160 00

CR.

By 32 tons of hay,	$160 00

Lot No. 10, took wheat from this lot. It was let out; I found one-half of the seed, and paid one-half the charge of machine for threshing. I receive one-half the wheat, delivered in the half bushel.

DR.

To my half of seed,	$23 80

To marketing wheat,	$5 00
" my half the threshing,	17 25
	$ 46 05
Profit,	327 07
	$373 75

CR.

By my half of the wheat, 575 bush. @ 65 c.,	$373 75

Lot No. 11, contains 30 acres, in wheat. This lot summer-fallowed this season.

DR.

To plowing the first time,	$45 00
" do second time,	22 50
" 58 bushels seed wheat, @ 65 c.,	37 70
" sowing,	1 50
" dragging,	15 00
	$121 70

Finished dragging Sept. 13th.

Lot No. 4 contains 1½ acres in pasture.

Lot No. 5 contains 17½ acres of meadow.

DR.

To mowing,	$8 75
" raking hay, man and horse, 2 days,	2 50
" drawing and putting hay in the barn,	15 00
	$26 25
Profit,	163 75
	$190 00

CR.

By 38 tons of hay,	$190 00

Lot No. 6 has 20 acres in oats, rye and meadow.

DR.

To mowing,	$4 50
" man & horse ¾ of a day to rake hay,	1 00
" hauling hay to the barn,	8 00
	$13 50

To plowing 12 acres,	$12 00	
" sowing " do	1 00	
" dragging, " do	6 00	
" cutting, raking and binding,	12 00	
" drawing grain,	3 00	
" 10 bushels seed oats,	2 50	
" 8 do seed rye,	3 00	
" threshing,	9 00	$48 70
		$62 20
Profit,		$102 80
		$165 00

CR.

By 16 tons hay,	$80 00	
" 160 bushels oats,	40 00	
" 120 do rye,	45 00	$165 00

Account of the stock kept on the farm this season. [The last winter I wintered 370 sheep, and did not lose one.]

DR.

To washing sheep,		$25 00
" shearing do		36 00

CR.

By 1410 lbs. of wool, sold @ 37½ cts.,	$528 75	
" sold 100 weathers as soon they were shorn for	150 00	
" " 20 ewes for	30 00	
" " 25 lambs for	31 25	
		$740 00

I sold as above, 145 head of sheep; but having raised 150 lambs, the original number is kept good. I made from 8 cows, 600 pounds of cheese and 900 pounds of butter, valued @ $112 50; also, raised 6 calves. I have pastured the above named stock on my farm; also, the following: 20 head of young cattle, 6 oxen, 2 brood mares, 5 colts and 10 horses.

S. G. PATTISON.

MARENGO, September, 1850.

GODFREY KNIGHT'S FARM.

To the Hon. the Executive Committee of the State Agricultural Society for the State of Michigan:

The undersigned committee, to whom it was referred to examine and report on farms in the county of Kalamazoo, respectfully report that two farms have been presented for our examination, viz: the farm of Godfrey Knight, Esq., of Schoolcraft, a prairie farm, and the farm of William H. Edgar, Esq., of Texas, an opening farm.

The farm of Mr. Knight consists of two hundred acres of land on Prairie Ronde, which he has been cultivating for about fifteen years. It is well fenced into small lots, of from five to thirty acres each, and so arranged by means of a lane running through it lengthwise, as to enable him to pass from his yards and barns to any lot on his farm, without passing through any other lot. These lots are all well fenced with rails, and thoroughly staked and ridered.

In addition to these lots he has an orchard, fenced on the roads with good substantial pickets, containing seven acres, with about four hundred bearing appletrees, and a great quantity of peach, plums, &c.; and on the inside of this orchard there is a hedge of apple, thorn, and English gooseberry, which is already nearly sufficient to constitute a full and safe fence. Mr. Knight estimates the fruit of his orchard, this year, at over five hundred bushels of apples, besides his summer fruits. This fruit is of choice kinds.

The arrangement for crops on Mr. Knight's farm are as follows: The present season he harvested forty-four acres of wheat, yielding thirty bushels per acre. He has forty acres of corn, which is in three separate fields, cultivated in three different styles, part of it drilled in, and it is all very large. Ten acres of oats; ten acres of pasture land, on which is living water, which, in addition of that sown to wheat, and his stubble, furnish feed for his stock. Mr. Knight has sown this season, fifty acres to wheat, on ground as follows, viz: ten acres clover pasture, ten meadow, and thirty acres of summer fallow; one-half of the latter sown with a drill, and the remainder broad-cast. Mr. Knight's arrangement is to sow annually about fifty acres, or one-quarter of his land to wheat, and a like amount of corn; his orchard is sown to buckwheat; all his yards and fields are supplied with good substantial gates, and the whole

farm presents the appearance of thrift and economy, as well as of great convenience and system in cultivation.

Mr. Knight having supplied himself with most of the choice implements of husbandry, carries on his farm by the labor of his own hands and that of his sons, and seems to understand the secret of making the most, as well as the best of every thing, by keeping pace with the improvements of the day, so that he fully enjoys the blessings of industry and economy, to wit: competence, and more than a competence. Mr. Knight has his farm stocked with one hundred sheep, twenty-two heads of cattle, nine horses and colts, and sixteen swine, besides pigs. His sheep, horses and swine, are very good; but your committee think he might, with profit, expend a few hundred dollars in improving the breeds and qualities of his horned cattle.

Your committee would also remark that Mr. Knight's arrangements of dwelling, barns and out houses, yards, sheds, trees, &c., are no less systematic, convenient and tasteful, than the system which he exhibits in fencing and cropping his farm, having in all his arrangements an exhibition of neatness and comfort, based upon and controlled by the wants of his family, and the strictest principles of economy.

The farm of Mr. Edgar consists of two hundred and eighty acres, and is admirably fenced into eight lots of irregular size and lying on two sides of a road, is not so susceptible of being fenced in a style quite as convenient as the farm of Mr. Knight, yet it is due to Mr. Edgar to say that he has displayed great industry, taste and skill, in his farming operations. He commenced his farm in a state of nature about five years since, and has now under a fine state of cultivation, on his home farm, one hundred and ninety acres. He had this season on his farm, eighty acres of wheat, fifty acres of corn, has forty-five acres seeded to clover, and this year seeds fifty acres more. His system is to clover and plow under to enrich his farm. He has also a fine arrangement for a pasture of forty acres well watered, and by the arrangement of fences, he waters all his fields upon the eastern part of his farm—in fine, all that Mr. Edgar needs to make his farm, under his nice system of farming, a "model farm," is a few years more time to enable him to arrange his crops a little more equally.

One thing your committee noticed in Mr. Edgar's farming, that no grubs or girdlings are left after the second year; all are cleanly removed from the sides and corners of the fences and elsewhere—a practice which cannot be too highly recommended.

The buildings of Mr. Edgar's farm are admirable in their arrangement and construction. Rarely have your committee seen so finely constructed a farm house as that of Mr. Edgar's, with a neatly walled cellar with a paved bottom, and walks all around his dwelling nicely paved, and his yards beautifully arranged and ornamented with shade trees. His barns and out houses, consisting of granery, wagon and carriage sheds, tool and work shops, sheep sheds, poultry houses, &c., all in fine order, and neatly and conveniently arranged; so neatly and conveniently, your committee could scarcely suggest an improvement.

Mr. Edgar is entitled to great praise for the efforts he is making to improve his stock of cattle, sheep, horses and hogs, some specimens of which we are happy to see on the grounds here to-day*, viz: a fine red Devon bull and calf. He has also a choice lot of Suffolk hogs of fine frame and size, and an improved grade of Merino sheep, and in these efforts Mr. Edgar is not only greatly benefitting himself, but the community in which he lives—and while your committee felt bound, taking the farms exhibited as they are, to award the preference to Mr. Knight, they could not, in justice to Mr. Edgar's single handed efforts, the short period which has elapsed since he assumed the occupation of a farmer, the great zeal, taste and economy which he manifests in all his arrangements and farming operations, both as a tiller of the soil and breeder of choice animals, but recommend him to your committee as worthy of a discretionary notice, and to the farmers of our State as well worthy of imitation, and one who may, without fearful odds, safely challenge competition.

All which is respectfully submitted.

ANDREW Y. MOORE,
Chairman.

*The Society's second anuual Fair, at Ann Arbor.

AMOS A. KINNEY'S FARM.

To the Executive Committe of the Michigan State Agricultural Society:

The undersigned having been appointed as judges on farms for the county of Lenawee, do hereby respectfully ask leave to report, that we have attended to that duty, and after a careful examination of all the farms entered for premium, do decide that on account of convenience in regard to fences, fields, lanes, gates &c., *thorough and systematic cultivation*, permanent, as well as convenient and economical construction and arrangement of buildings, the farm of Amos A. Kinney, of the township of Seneca, is entitled to the first premium of the Society.

WALTER WRIGHT,
RICHARD KENT,
EDWIN SMITH,
Com. on Farms, Len. Co.

September 26th, 1850.

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SAMUEL BARTLETT'S FARM.

The committee on farms for the county of Monroe, beg leave respectfully to report, that they have examined all farms which have been presented for examination, and have concluded to report unanimously, that the farm possessed and occupied by Samuel Bartlett, of the town of Lasalle, is under a better state of cultivation, and exhibits more agricultural skill than any other which your committee has been called upon to examine. We therefore report his farm for premium.

JOHN BURCH,
Chairman of Committee.

ANN ARBOR, September 27, 1850.

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PAYNE K. LEACH'S FARM.

The committee appointed by the executive committee of the State Agricultural Society to examine and report on farms in the county of Macomb, beg leave to report that they have had but one farm submitted to them for inspection; the farm belongs to Hon. Payne K. Leach, and is situate in the township of Shelby, containing 240 acres

of land, 200 acres of which are under good improvement; 120 acres are fenced into six twenty acre lots; the remainder, except the garden and yards about the barns, is fenced into ten acre lots; all the fences, except the yard and garden fences, (which are of posts and boards or pickets,) are of black ash rails, laid into what are called the "Virginny worm," with stout staking at the corners, and capped, from seven to eight rails high, eleven feet rails, and squared at both ends, making a substantial and lasting fence. The farm house, the residence of Mr. Leach, is situated near the centre of the farm; the upright part, 26 by 36, two stories—an L, 24 feet square—with wood shed 30 feet square, with stone cellar under the whole, with cement bottom; the whole house furnished in the most convenient and substantial manner for a farm house. There is also a small tenant's house on the premises, 18 by 24, well furnished; two 30 by 40 barns, with 100 feet of sheds attached thereto, a house and carriage house, 26 by 36, well furnished and painted, and a small hay barn. All the buildings on the premises are in the most complete order, as well as the farm and fences; a good orchard of about four acres, mostly apples, and of the very best selections, and bears bountifully; the orchard has been set fifteen years, and the whole grafted within seven years. It is the finest orchard and fruit we know of. Mr. Leech has all the varieties of peaches, pears, plums, cherries, &c., in abundance. The farm has been under cultivation about fifteen years; the soil is a loam intermixed freely with lime gravel, and is very productive.

Mr. Leach has about 400 sheep, of the best grades; four horses and four cows, which he keeps in the barn. His wool crop this year was about $500; this year his crop of wheat amounts to 500 bushels, and 2,000 bushels of corn, with all other crops in proportion. All the fodder and grain to keep the sheep and other stock mentioned, is raised on the farm. Mr. Leach informs us that, by the use of clover and other manures, his land is continually increasing in productiveness and value. The farm is well watered with a clear running and living brook across one end of it, which by the use of the race, can be carried to any part of the farm.

Mr. Leach is an excellent farmer, as any one may know by the looks of his farm and the good condition in which it is kept. He

ploughs deep, and feeds the land, and in return it yields him an hundred fold. On the whole, we think that his farm combines more advantages, is better worked and taken care of, and yields a greater profit than any farm in our county, and perhaps in the State; and we have seen and examined a large number.

All which is respectfully submitted.

H. CARTTER,
CALVIN PIERCE,
Committee.

Utica, Sept. 21, 1851.

LINUS CONE'S FARM.

J. C. HOLMES, Esq., *Sec'y Mich. State Ag. Society:*

The undersigned, the committee to examine farms proposed for premiums at the State fair, for the county of Oakland, respectfully report, that at the request of Linus Cone, Esq., of Avon, Oakland county, we visited his farm during the latter part of August last, for the purpose of examining and reporting on the same.

The farm is slightly rolling, a ridge running north and south, nearly through the centre; it comprises a little over one hundred acres of land; the buildings are on this ridge. The house is convenient and pleasant, fronting the south, and a few rods from the road running east and west, and elevated above it, with a neat door-yard well fenced; the house is painted white, with blinds painted green, and appears to be well arranged for comfort and convenience. Adjoining the kitchen is a wash-room, and the well under cover. The out buildings are a substantial farm barn, west of the house, with a cow shed connected with a smaller barn on the south; a carriage house and horse barn, with a shed on the west side attached to this barn, for the farm wagon, plows, drags and other farming implements; a good well of water, with a pump and trough near the door, of the carriage house; a large and convenient hog pen, with a room for a tool house and shop, with grind stone, &c.; and overhead a crib, granary and spare room, to store away seeds, &c. These buildings adjoin an open and spacious yard, with a gate to the street, and a fence to separate it from the barn yard, which is entered from the outer yard by a gate; and another gate leads to the lane running north, nearly through the centre of the farm to the woods; on each

side of this lane are gates into each of these lots. These gates are the most substantial and durable kind, the posts very large, and said to be set six feet in the ground; some of these gates said to have been in use six years, and show no signs of sagging or decay; they are all painted, and well worthy of general imitation.

The garden was well supplied with vegetables; several of the best varieties of strawberries, raspberries, currants, &c., flowers of several beautiful varieties, and some about the piazza in front of the house. Adjoining the garden on the north, is the fruit orchard—first the peach, pear and plum trees, and some small apple trees, then the bearing apple orchard, with choice varieties, principally winter fruit, the trees well pruned and scraped, presenting a healthy appearance, and in full bearing—the peach and young apple tree ground was planted with ruta baga and pumpkins; the other part of the orchard in beans, and all promising good crops

The cornfield promised a heavy crop, and had been well cultivated with plow, cultivator and hoe; the fence corners were all cleaned out by mowing off the grass; the corn stood well without being hilled up. The stubble on the wheatfield showed that there had been a great growth, and Mr. Cone informed us that a storm in June had thrown it down, and it remained lodged until harvest, when they were obliged to reap the wheat. He thought he would receive about fifty bushels to the acre—part of it had been threshed, and looked very well; some of the grains were shrunk, and this may materially lessen the yield.

Mr. Cone stated that part of this beautiful wheatfield was originally swampy or springy land, commonly called in this State, a cat-hole, which he had drained with a deep ditch filled with stone, and covered over; part of the field was drained with a good open ditch, and part with the furrow of the plow, cleaned out in the usual manner. He showed us samples of wheat taken from each of these parts of the field—that taken from the slight plow drain was dark in color and shrunk—that from the deep, open drain was a fair sample of good marketable wheat—that from the deep covered drain, was a plump, clear, beautiful grain. His experience in draining should be published, and his example followed by every farmer who has such a piece of land, and we scarcely know a farmer in this Co. that has not.

The summer fallow was prepared by deep plowing for the fall seeding—the stumps and large stone were principally removed from the fallow, the stone broken by the action of fire, and drawn into the lane.

We saw a fine flock of sheep, about an hundred, and some lambs; they all looked as if they had been well kept; the other stock was two yoke of oxen, four cows, and three horses; one of the latter, "Old Jerry," a gentleman commoner. The farm appears to be sufficiently watered with wells—the water is near the surface, of excellent qnality, and abundance.

The farm and buildings, together with the fences, gates and method of cultivation; are exactly of the kind that entitles the owner to the epithet of being a neat, good, and thrifty farmer. These are the ornaments of our State, and we regret that we have not more of them.

We cheerfully recommend Mr. Cone's farm as the best we have seen in the county, and consider him well entitled to the society's premium.

Here our duties as an examining committe, might end; but we wish to introduce to our farming friends, a practice adopted by by Mr. Cone, which we think should be followed by every farmer, and that is, keeping a dairy and account of the work done, and the costs and expenses of carrying on his farm, and of each crop that is raised on the farm, so that at the end of the year he can tell what his expenses have been, what his sales amount to, and the profit and loss, not only of his whole farm, but of each crop.

The whole economy of Mr. Cone's farm, appears to be conducted with systematic detail; the only true way of arriving at correct conclusions. Mr. Cone, is what some persons sneeringly call a book-farmer; that is, he not only subscribes to a number of agricultural works, but he reads them, and every other work that he can get on agriculture, and then works his farm according to the experience which he has thus obtained, aided, and sometimes improved by his own judgment. Farming, like every other science, is progressive, and he who desires to succeed, must read as well as work; he must spend money as well as time and labor, and although he may occasionally fail, he will in the end succeed; perseverence will romove all difficulties.

We requested Mr. Cone to furnish us a short statement of his farm and the manner of cultivation, and a statement also, of the crops, stock, &c., on the farm for the past year, with his account of the crops and profits and loss, which is herewith submitted.

A. WHITEHEAD,
H. N. HOWARD.

The following statement in relation to the farm of Linus Cone, of Troy, in said county, was presented to the Executive Committee, by the committee on farms, of the Oakland county Agricultural society.

The farm contains one hundred and five acres, exclusive of the highway, of which about seventy-one, is under improvement.

Eight acres of which has been recently cleared, but has never been ploughed or seeded; it yields some grass for pasture, but is not very productive.

The farm was originally heavy timbered, principally with oak, with an under-growth of hazel on most of it, and a very considerable quantity of stone and some rocks, which have been removed from the cultivated fields, with few exceptions—the soil is principally a clay loam, with some mixture of gravel, resting on a subsoil of the same.

The best method of improving the farm, I found to consist in deep ploughing, ample manuring; care being taken to have those portions of the field which needed it, thoroughly drained. I have ploughed nearly twelve inches deep usually, for several years past. I have used the subsoil plow but little, and not sufficient to express an opinion upon its merits. Manure has been applied to the corn, barley and peas, in an unfermented state; what remained, was piled up in the yard, and after it had fermented, was applied to the wheat crop. Plaster has been used as a top-dressing for wheat and corn, at the rate of half a bushel to the acre for wheat, and one bushel mixed with ashes for corn, and always with marked benefit.

Thirty-seven acres of the farm were under tillage during the year, as follows: Twenty one and a quarter were in wheat, six in corn, six and a quarter in barley and oats, three and a quarter, (the apple orchard,) in beans, turnips, pumpkins, &c., fourteen acres put into wheat in the fall. The wheat is generally sowed on a clover ley, ploughed deep, made mellow with harrow and cultivator, and sown after the

middle of September and cultivated in. I have used a drill this season sufficiently to try the experiment.

The amount of wheat raised last year, was 887 bushels.

" expense of cultivation was $331 69

" crop of oats and barley, was 71½ of oats & 69 of barley.

" expense of cultivation was 48 71

" crop of corn, was 758 bushels of ears.

" expense of the crop was 51 13

" product of the crops in the orchard were 16 bu. of beans, 400 bu. turnips, 4 loads of pumpkins.

Expense of cultivation, 46 26

The fruit of the orchard 125 bbls., 50 bu. for family, and 20 bu. fed to the hogs.

Expense, 47 00

There was no account kept of peaches, cherries, pears and plums.

There was no account rendered of the pasture; the amount of hay was ten tons, cut from the pasture fields, and two cut from the fence corners in the tilled fields.

The number of sheep kept on the farm was 96.

The clip of wool was 403½ lbs.

21 sheep sold and 21 lambs raised—the sheep sold for 14s. per head, and one for $2,00.

The expense, exclusive of keeping, was $6 50

The domestic animals at present on the farm is 4 cows, some young cattle and one calf, two horses, besides old Jerry, and two yoke of working oxen.

No account of the product of the cows, as the same was used in the family.

Four fat hogs not yet slaughtered, estimated to weigh about 400 each, 4 pigs and one boar for store hogs.

All which is respectfully submitted.

ALMERON WHITEHEAD,

Committee on Farms.

H. N. Howard, *Secretary.*

J. SHEARER'S FARM, PLYMOUTH.

Soil and Situation.

The farm lies on an elevated ground, one mile west of Plymouth village, and consists of about 115 acres, of which about 80 acres are under cultivation, and the remaining 35 acres being in woodland. The farm lies gradually sloping to the south east, and undulating in its character. The land has proved itself well adapted to the cultivation of both grain and the grasses. It contains a variety of soils, clayey loam the most abundant—some fields are sandy loam mixed with lime gravel. The best method of improving the farm within my experience, is deep plowing, manuring, plasturing, seeding with clover, and occasionally with timothy. The usual depth of plowing has been from 6 to 8 inches, but frequently to the depth of nine and ten inches, so as to bring up a subsoil.

The trees indigenous to the soil, were white oak, sugar maple, black walnut, basswood, whitewood, butternut, hickory, bitternut, beech, white ash, wild cherry, thorn bush, crab apple, wild plum, sassafras, boxwood, and blue ash. The plants indigenous to the soil are as follows: adder tongue, blood root, mandrake, spikenard, blackberry, gooseberry, raspberry, solomon's seal, wild turnip, and genseng, &c.

The woodland being on the north end of the farm, and the improvement on the south end of the same, the public highway passing through the improvement from east to west, near the centre, and the buildings are situated on the north side of the highway near the centre of the improvement. The farm is watered by a living brook and several springs of good water, so that the stock are provided with water at all seasons of the year. The farm is subdivided into lots of about eight acres, so as to admit of the rotation of crops, and changeable pastures for horses, cattle, sheep and swine. There are two lanes, one running to the north from the buildings to the woodland, and the other on the south end of the improvement, so that easy access is had from the buildings to any part of the farm by gates and bars.

Manures.

The manure is allowed to accumulate in the yards until spring when it is applied either in a green state or scraped in heaps for fer-

mentation. When applied it is plowed under immediately. The straw of the grain raised on the farm, is littered over the sheep and cattle yards, and used for bedding in the stables during the winter season, all of which becomes converted to manure in a green state, and makes a valuable dressing to the land occupied for spring crops, and is generally spread over the fields most in need of it and plowed under some eight inches deep, and thus remains to assist the crops in maturing. The tendency being upward called by some capillary attraction, nothing is lost by plowing under manure, in my opinion. But spreading manures on the surface and then remain in an exposed state, the ammonia escapes by evaporation and much of its fertilizing qualities are lost.

I have used lime, plaster and ashes, and the result has been good. One bushel of plaster to the acre, on meadows, pastures and summer fallows, have shown a visible effect in favor of increased crops. One field of eight acres has been brought into a fine growth of white clover by this means, which has furnished my sheep with good food during the season. Lime and ashes have proved beneficial to my dry land. There is a bed of muck marl on the farm, which is intended to be brought into the barn yard, and manufactured into compost with the barn yard manure. There is also a large amount of decayed vegetable substance, such as rotten wood and leaves, in the woodland, which may be collected and incorporated in the compost, in addition to which, a vat is intended to be constructed to contain the drainage of the yard. I know of no other way by which my supply of manure could be so cheaply increased.

Tillage Crops.

The system of tillage adopted is to keep about one-half of the improved land under the cultivation of the plow, and the other half to the grasses, changing the crops of grain and grass as often as the condition of the land requires. By this method, the stock is well sustained, manure is made, the rotation principle preserved, and the land receives rest, to accumulate the essential nitrous substances, so useful for the crops. Last season, fourteen acres were plowed, the last of June and fore part of July, for wheat, one-half of which was plowed twice, the other half but once, about eight inches deep. That part plowed once was cultivated with Ide's Wheel Cultivator. The

seed sowed and cultivated in. The part plowed twice, sowed at the same time, on equally as good land; all sowed between the 15th and 20th of September; and the wheat on the land plowed once, was much the best. From the fourteen acres there were harvested 420 bushels of flint wheat, weighing from 63 to 64 pounds to the bushel, which has been mostly sold and engaged at $1 per bushel, for seed. There is not probably a spoonful of foul stuff in the lot of wheat. My practice in preparing the seed is to wet it well with a strong brine, then roll it in plaster or lime, and sometimes both, and by seeding from the 15th to the 25th of September, it does not come up till the *insect* is gone, and when it does come up, it grows remarkably fast, and forms a strong root to withstand the winter, and it comes forward the next season so as to escape the rust. During near thirty years my wheat has not failed of a good crop either in western New York or here. Two bushels of flint wheat are generally sowed to the acre for seed.

Ten acres of corn has been raised on the farm this year, three acres of which was sowed broad-cast, 2½ bushels to the acre, which has been cradled and cured for the stock. It was of the eight-rowed variety. The remaining seven acres is of the red cob, dent, planted about the middle of May, three and a half feet apart, and cultivated and plowed both ways, requiring but little work with the hoe. The growth is large, and the yield by estimate, will be some 60 bushels to the acre. Formerly I drilled my corn, the rows four feet apart, with not to exceed three stalks to the hill, eighteen inches distant the other way, calculating the rows to run east and west, so that the hills receive the rays of the morning and evening sun, which is congenial to the corn plant, and the yield will be better than to have the rows, run north and south, as one row shades the other in the morning and evening;—*this has been tried to my satisfaction.*

The potato crop is planted on the highest dry land; the seed is cut and rolled in lime. The long pink-eye and the blue French potatoes are preferred; the pink-eye for early eating, and the other for winter and spring use. Half an acre is generally raised, which furnishes all that is required. In this way of management, there are but few lost by disease. If they are manured at all, it is done with straw manure. They are invariably changed on new ground yearly.

The oat crop is a dear crop with me, and therefore is abandoned, as dry oats are but poor food at the best, compared with corn meal, ground cob and all, and mixed with bran and shorts, equal parts, put on wet cut hay or cornstalks—further, the oat crop is a bad crop to follow with any other crop, *with me.* Barley has been raised, but not with much success, as the land at present is rather new for the barley crop. I never allow my land plowed early in the spring, when it is wet and cold, or my fallow to be plowed till near July, and if a clover lay, the month of August is early enough, and then plowed but once; after which, cultivated, so as not to raise the vegetable matter. Twelve acres of hay was cut this season, produced 25 loads and 4 loads of 2d crop hay.

Domestic Animals.

The stock at present on the farm is as follows:—4 cows, 1 yoke of oxen, 2 brood mares, 3 yearling colts, 1 colt four months old, 3 two year old colts, 30 Leicester sheep, and 6 swine. The stock sold during the current year is as follows:—1 horse, 1 yoke working oxen, 1 yoke beef cattle, 2 cows. There has been three calves raised this season; the stock is fed on straw and corn fodder, with some hay in the fore part of the winter, with good warm sheds and stables, littered daily with straw; and the latter part of winter they are fed on hay and chopped feed. Care is taken that a due proportion of salt is given, both summer and winter, to the stock at seasonable times. Salt given towards night is better than given in the morning, but not too much at a time; all stock require their food well seasoned with salt—my stock are regularly fed, and in clean places. From the 30 Leicester sheep, two hundred and ten pounds of wool were shorne last May, which is estimated to bring thirty cents per pound—the most of it is sent east. The fleeces of two of the yearling bucks weighed twenty-four pounds and ten ounces. These sheep fatten early, on the least food of any other kind of sheep—the yearling wethers, well kept, will average 25 lbs. to the quarter, and the ewes 22 lbs., of good flavored mutton.

Fruit.

There is an orchard of two acres on the farm, in full bearing, containing one hundred trees. The trees are all grafted, and comprise the following varieties: Early Harvest, Sweet Bough, Golden Pippin,

Holland Pippin, Newtown Pippin, Twenty ounce Pippin, Golden Russet, Spitzenberg, Seek-no-Further, Bellflower, Rambo, Swaar, Steels Redwinter, Rhode Island Greening, Spice Sweet, Jersey Sweet, Black Gilleflower, the Scallop Greening, Everlasting Stone Apple, Pearmain, &c. There is an apple nursery of some ten thousand trees, one thousand of which are grafted with the above named varieties. There are also several varieties of pears—the Sweet Harvest, the Orange pear, Catharine pear, Dermott pear and Pound pear. There are eighty peach trees: the Rareripe, Jersey Yellow, the White peach and large Orange peach. The most of the trees are in full bearing. There are 20 quince trees, with some eight bushels of quinces on them now. There is a nursery of pears, quinces, plums and peaches, of many varieties, both early and late. The orchards have been cultivated with corn, potatoes and wheat, during 12 years, till last season—they are now in timothy grass, as orchard grass seed could not be obtained. It is confidently believed that orchards should not be seeded to clover, as it injures the trees materially.

GRASS LANDS.

Clover and timothy are grown on this farm. Four qts. of clover to six qts. of timothy, mixed well with sand, (which aids in seeding evenly,) are sown to the acre, in the spring, on the growing wheat, after which is sown half a bushel of plaster to the acre, over the field, wdich prevents the drouth from killing the young tender clover, or a better way, roll the clover and timothy seed in plaster, which gives the seed a *life insurance.*

The saving of green hay with salt is considered bad ecomomy—I have tried two stacks of the same condition in all respects, except one had salt mixed with the hay, and the other not, and the salted stack drew the moisture from the atmosphere, and the hay turned black, and my stock did not do as well on it as they did on the fresh hay. Brine was put on the fresh hay, occasionally. I believe hay as well as tea, should be well cured—and if salted, let it be done when fed out. The grass seed is sometimes sowed in the spring, with spring crops, and harrowed in. The fields intended for timothy meadows are sown in the fall, with from eight to ten qts. of good seed to the acre, and also harrowed once over. The drouth, uncommon

for this region, commenced the last of April, and continued till the last of June, which made the hay crop rather light, hence 3 acres of corn was sown broadcast—it produced well, and will supply the deficiency of the hay crop.

The timothy hay is allowed to stand till some of the heads are nearly ripe, and in good weather that which is mowed in the morning and frequently shook out, will do to go in in the afternoon; if not, it is put up in well trimmed cocks, and that which is mown in the after part of the day remains in the swath over night. The following day it is turned, raked into winrows and drawn in without having been drawn into cocks. Clover after being cut, is allowed to lay in the swath till the following morning, when it is turned, and the same afternoon raked into small cocks—the next morning if the weather is fine, these cocks are opened and the hay carried into the sheds—or if stacked, the stacks covered with fine hay on the top.

The labor on the farm exclusive of that done by the family, is either employed by the month or year, as day laborers cannot at all times be relied on to do the work in its season; however, some day labor is employed.

The following statement of the expenses and profits of the wheat crop this year, will serve as an illustration to the accounts and calculations made on the farm:

1st. Price of land at $40 per acre for two years of 14 acres, at 6 per cent. interest,	$67 20
2d. The cost of plowing, sowing and harvesting,	50 00
3d. Cost of seed, two bushels to the acre,	28 00
4th. Threshing and cleaning,	24 80
Cost of cultivation including interest,	$170 00
420 bush. cost $170, equal to 40½ per bush. and sold at $1, per bush.,	$420 00
	170 00
Nett profit,	$250 00

The interest on the land is reckoned at 6 per cent. Similar statements could be given of every crop raised, but the above will suffice. The corn crop is considered on the whole more valuable than the wheat crop, comparing the costs with the receipts.

Farm account—1850.

DR.

To labor account,		$300 00
" house expenses,		200 00
" farm expenses,		300 00
" tax,		18 00
Profit and loss,		409 00
		$1227 00

CR.

By 420 bushels wheat, at		$1 00,	$420 00
" 400 "	corn,	38,	152 00
" 400 "	apples,	25,	100 00
" 50 "	peaches,	25,	12 00
" 8 "	quinces,	1 00,	8 00
" 500 lbs. maple sugar, at 8c. per lb.,			40 00
" sales from nursery and peppermint,			33 00
" stock sold,			212 00
" wool,			60 00
" dairy,			40 00
" hogs.			30 00
" potatoes,			20 00
" hay and corn fodder,			100 00
			$1227 00

In the account of house and farm expenses, are embraced the amount of farm produce consumed and cash expended. As the corn and fruit are not all harvested, the above accounts are estimated with the prices affixed thereto, low enough. I should judge that there will be over six hundred bushels of apples, but it was thought best to estimate low enough so that they held out.

I have answered according to the best of my ability, all the questions proposed.

JONATHAN SHEARER.

P. S.—Care is taken to prevent noxious weeds growing on the farm, or in the highway leading through the same.

There are locust trees of twelve years growth planted on each side of the highway through the farm, which at present affords a fine

shade, and in the process of time they can be coverted into good fence posts; also, about the house, are growing varionus kinds of fruit trees, such as the Black Cherry, the Red Cherry, Plumb trees, Ailanthus, &c., &c., which makes a pleasant retreat at noon in warm weather; the cost of which was but a few hours time in the commencement. The buildings are commodious, although not expensive. The barn is nearly 30 by 45 feet, running east and west, with a shed at the end of it 20 by 30 feet, near the corner of which there is a shed 17 by 61 feet running north and south, all of which break off the north and west winds from the yard. The yards are furnished with water.

There is also a hogpen well finished, and a granery standing seperate from other buildings, for clean grain. And there is an ash and smoke house made of brick, large enough to set a kettle for boiling. There is also, a wood house 40 by 16 feet, with a work shop in one end of the same. The dwelling house is 26 by 52 feet on the ground, affording all the room which is necessary for the family. The cellar to the house has a brick floor; the walls are laid with stone and lime cement, and the whole made proof against rats and mice. The rooms on the lower floor of the house, are as follow: Three square rooms, three bedrooms, one clothes' press, one buttery and a chese-room, with an open stoop 8 by 11 feet and a stairway to go up chamber and down cellar. This arrangement makes the house rather convenient for farming purposes, as the work is done below, although 26 by 18 feet of the house is two stories high, which furnishes a square room and two bedrooms above.

J. SHEARER.

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The undersigned, having been appointed Judges of farms (for the county of Wayne, by the Executive committe of the State Agricultural Society, of Michigan,) offered for premiums, have examined J. Shearer's farm of Plymouth, and do hereby pronounce it the best cultivated farm in the county of Wayne, and beautifully located, and from the personal acquaintance with Mr. Shearer, due credit to the annexed report, is most cheerfully given. We are also, person-

ally acquainted with his farm and believe it to be well improved, and its arrangements, with the buildings, are commodious.

JOHN WESTFALL,
A. L. STEVENS,
Committee on Farms for Wayne Co.

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J. SHEARER'S STATEMENT.

The produce of one-sixteenth of an acre of ground, by J. Shearer, 1,100 of clover and Timothy hay cut, the 1st of last July; and from the same ground the middle of this month, (Sept.,) 400 pounds of rowen, making 1,500 pounds of hay; and 8 bushels quinces, 40 bushels of peaches, 8 bushels of greening apples, half bushel pears, 2 bushels of currants, and half bushel of Isabella grapes. This fruit could not be accurately measured, as it is not all ripe, but nearly so. But the several amounts have been estimated by good judges to exceed the amount stated. All of which is to show what can be raised on a small piece of ground. The land is a clayey loam, and has been manured but once, with eight common loads of good manure.

All which is submitted to the judges of the State Agricultural Society of Michigan.

J. SHEARER.

PLYMOUTH, Sept. 23, 1850.

Also, he presents the amount of wheat raised on two acres of land, this season. The amount was 106 bushels, weighing nearly 64 lbs. to the bushel. The land was manured with about ten loads to the acre, on a part of the field, and the rest with not any manure. The year previous, about one bushel of plaster was sown on the field to the acre. The land was sandy loam, of a dark color, mixed with gravel, some, and part of lime; plowed but once, near the 10th of July, 1849; harrowed over once with the joint square harrow, then cultivated with Ide's cultivator until it was perfectly subdued, except that the vegetable matter turned under was not brought up, which had been turned under by the plow, from eight to nine inches deep. The seed was wet with a strong brine, and rolled in plaster, and sowed the 15th day of September, cultivated in and left without harrowing. Six rods of the ground, in one corner of the field,

was cut and bound, which made sixty good common sized sheaves for stout wheat. A. H. B. Holbrook, Esq., made a cast on the amount it would yield, by estimation, allowing the wheat to yield, after being threshed, six bushels to the hundred sheaves, and he made it over eighty bushels to the acre, providing the field was generally as good as the six square rods then cut. But by measuring off two acres and putting the wheat by itself, and threshing the same, it did not all yield as good as the six square rods above named. As before stated, the two acres were threshed, and it amounted to one hundred and six bushels by measure, by a sealed measure, and one hundred and twelve bushels and eleven pounds by weight—112 bu. 11 lbs. of white and crystal flint wheat. [Sowed two bushel and a peck to the acre.]

J. SHEARER.

PLYMOUTH, Sept. 23, 1850.

The undersigned helped harvest the above crop, and thresh the same, and it amounted to the above quantity, from the two acres, as above described.

PETER LEMON.

I, the undersigned, threshed the above named wheat, and there were one hundred and six bushels, by measure; weighed 106 bu.; weight, 63½.

HENRY WHIPPLE.

PLYMOUTH, Sept. 23, 1850.

Essay on Wheat Growing.

BY WARREN ISHAM, EDITOR OF THE MICHIGAN FARMER.

There are two codes of laws, to which all the inhabitants of the earth owe allegiance. There is the moral code, revealed in the bible, which prescribes to man his duty, as a moral and accountable being, and metes out to him his award.

And then, there is the physical code, sometimes called "the laws of nature," which extends its jurisdiction to the heavens above, and to the earth beneath,—regulating the motions of the heavenly bodies, giving us day and night, summer and winter, seed time and harvest,—and at the same time taking cognizance of the elements out of which our crops are made, fixing their proportion in the soil, governing their action, and prescribing the *conditions*, upon which alone they can be organized into crops.

And we may just as well undertake to resist the execution of one portion of this code, as another—just as well undertake to set the law which governs the motions of the heavenly bodies *at defiance*, by planting our gardens in November, as to undertake to set at *defiance* the law which governs the conversion of the soil into wheat, or corn, or oats, for it would be just as much at our peril in the one case as in the other.

That law is imperative; it is also inexorable. Its first great requirement is, that you honor the drafts which you make upon the *soil* by each successive crop, by returning to it the elements you have drawn from it, in due time. *That* is the law, and you can obey it, and reap the reward, or you can disobey and be *sentenced* to *hard* labor and *hard* fare—the alternative is before you.

But do not flatter yourselves with the hope of escape, if you fail to comply with its requisitions, *because* you was ignorant of its claims, or because you was in debt, and vainly thought *that* was the way to pay your debts. You cannot escape; you *can* escape, you may *dodge* the penalty of *human* laws—but this great law of the universe, framed when the foundations of the earth were laid, and over whose enactment the morning stars sang together, no man, from the found-

ation of the world, ever disobeyed and escaped, and no man ever will.

And how can it be otherwise? The bodies of animals are found, by analysis, to consist of certain elements; these elements are found to exist in the vegetables, as well as in animal food, which they consume—otherwise it would not be food; and the same elements are found in the soil out of which the vegetables grow. These elements in the soil then, fifteen in number, constitute the food of your crops (with the exception of what is derived directly from the atmosphere;) but they exist there only in limited quantities, and every successive crop which feeds upon them, of course, takes from them what is necessary to its growth, and makes the soil just so much poorer. The deteriorating process may be very gradual, and may scarcely be perceived, but it is going on, and the time is coming round, and that at no distant day, when it will have done its work—and the deluded man, how can he escape the consequences? He is a robber of the soil, and though he toil like a slave, it will avail him nothing, for the day of retribution has come.

But there is another section to this law, viz: that whenever your soil, in its native state, is deficient in certain elements, which renders it unadapted to particular crops, those elements must be supplied, or you must suffer the consequences, if you attempt to raise those crops upon it. As an example, look at yonder wheatfield, the crop all flat upon the ground. What ails it? The soil is deep, black, and apparently very rich Do you say that it grew so stout—that the crop was so large and heavy it could not stand up? I tell you *nay, that* is not the reason. Why should the simple fact of the straw being large, cause it to lodge, if it is strong in prodortion to its size? And as to its being heavy, the heads are not half as well filled and heavy as they are upon good wheat lands, with much smaller straw, and of course it should be *less* liable to lodge, on that account.

The truth is, that while the soil is very rich in certain elements, it is very poor in certain other elements which are necessary to give strength to the straw, particularly in silicia, or sand, which you know is deficient in all vegetable moulds. Sand, melted with potash, forms glass, and it is the chemical comblnation of these two elements which forms the glazed coating upon the straw of wheat, and pervades its

organization, stiffening it. and enabling it to stand upright. But for this, it could never rise from the ground at all. It is true that some varieties of wheat are more liable to lodge than others, but no variety will lodge badly upon a good wheat soil.

And why are the heads so light, as well as the straw so frail? Plainly, because there is a deficiency of certain mineral elements in the soil, (such as lime, phosphoric acid, &c.,) which are essential to the perfection of the berry.

Other soils have a superabundance of one of these very elements, being almost all sand, and are deficient in vegetable mould, which was so abundant in the case just mentioned. Both deficiencies may be supplied, as will appear in the progress of our remarks. In their present state, however, without any supply of these elements, there are certain crops which find appropriate food in each of these soils, and in fact most crops in the former; but beyond these, if you attempt to go, until the deficiency is supplied, it is at the peril, not only of the loss of your profits, but of your labor.

And there is another section to this law, viz: that lands in their native state, ordinarily deemed productive, may, by good husbandry, have their productiveness increased to an almost indefinite extent; doubled, trebled, and even quadrupled; and the outlay required in the ameliorating process, will meet a far higher reward than that which was expended in the first purchase and subsequent cultivation—at least one hundred per cent. higher. This may startle you, but wait a little, and we will see.

Is it not plain that, in doubling the productive power of your land, you get the additional one-half, which would thereby be added to your crop, for a trifling outlay, compared to the cost to you of the other half, (which now constitutes your entire crop?) All the additional cost which the additional product will require, will be the interest on the capital expended upon the soil, in improving it, and the trifling additional expense involved in the harvesting, threshing, &c., which being deducted, will leave you a profit of more than one hundred per cent. greater than that which you now get on the one-half, that is, your entire crop, reckoning the interest on the first cost and subsequent improvement of the land, and the entire expense of cultivation, which is almost as much as it would be with double the pro-

duct. And it will appear, in the progress of this essay, that the expense of doubling the productive power of our ordinary wheat lands, is far less than most farmers have imagined.

But our farmers generally, so far from aspiring to these high rewards, thus placed within their reach, have, by their bad husbandry, even forfeited those which their lands, kept in their natural state, would have yielded them. Take, for example, the average yield of the wheat crop of the State, for a series of years, which, according to statistics drawn from the most authentic sources, is but a fraction over ten bushels to the acre, not certainly more than half what the land was capable of producing, when first put under cultivation This, you will say, has been owing, in part, to the ravages of insects and rust. But when free from these calamities, fifteen bushels to the acre, taking the whole State over, would ordinarily be considered a good yield, which is very far below what our lands were originally capable of producing, and which, according to Prof. Johnston, is only just half the present average yield of the wheat crop of Scotland. And the same distinguished agriculturist adds, that what has been done in Scotland, may be done in New York, judging from the character of the soil of the two countries, and also from the fact that the annual prize crops of New York, are larger than those of either England or Scotland; and we may add, that what can be done in New York, can be done, uay, *has been done*, in Michigan.

And it is by no means certain, that the loss to the farmer by insects and rust should be set down to the account of his *misfortune*, rather than his *fault* as a cultivator of the soil. We are strongly inclined to this consolation, and for the following reasons:

To say nothing of the fact, that the wheatfields of Michigan were never visited by the insect in the first settlement of the country, nor until they had become partially worn, is it not enough to make out a strong case, that when this enemy did come, those fields, scattered here and there, which had recently been put under cultivation, of a strong virgin soil, or which had been raised to a high state of cultivation by thorough farming, *escaped its ravages*, while others around them were destroyed? In one of those calamitous years, we had a forty-acre field of wheat, which was totally uninjured, and which yielded an average of twenty-five bushels to the acre; and it was the

only field of wheat in the region which was not destroyed. But it was strong, new land, this being the first crop, and well put in, while all around, the land was partially worn. The wheat was of the white flint variety.

We know a farmer in Oakland county, who has not failed of a heavy wheat crop, in a single instance, for the last fifteen years, his lowest average in any one year being twenty-three bushels and a half, and his general average for the whole time, being over thirty bushels to the acre, as his farm book shows, while, at the same time, the wheat crops all around him have been destroyed for years in succession, and for the whole time have scarcely averaged ten bushels to the acre. But his land has been subjected to higher cultivation, perhaps, than that of any other man in the State.

Dr. Fitch, in his celebrated essay on the Hessian Fly, well and truly remarks, that not unfrequently the wheat on the lighter and thinner portions of a field, is totally destroyed, while that upon the heavier and stronger portions of the same field, escapes uninjured, and these portions often alternating with each other. And who, that has been familiar with the ravages of this insect, has not observed similar phenomena?

We might go on to multiply instances of a similar import, almost indefinitely. And to what do they all amount? Why is it this subtle enemy is commissioned to do its work upon one field, and not upon another—upon one man's crop, while that of another, close by its side, and put in at the same time, is left unmolested? Why, if it be not that, in the one case, the plant has been well fed, and thereby endued with a vigor of constitution which enables it to withstand the assaults of the enemy, and in the other, not? Those fields which escape injury, do not escape attack; that is not it—insects are in them, in swarms, but the plant is foritfied against them, and triumphs over them.

Thus severely, it would seem, have the great mass of our farmers been punished for their disregard of the law which governs the conversion of the soil into wheat, and with Dr. Fitch we would say, happy will it be for them, if they are thus scourged into a better system of husbandry!

And there are also very good reasons for the opinion that rust is

sent upon the same errand. Who does not know, that there are certain soils upon which wheat is always expected to rust—particularly those which are made up of deep vegetable mould, which has but little lime and other mineral elements in its composition? And who does not know, that there are certain other soils, on which wheat is *ordinarily* regarded as secure against the rust, and that these soils have but a comparatively small proportion of vegetable mould in their composition, while they abound in mineral elements, particularly lime? These are facts familiar to every intelligent farmer.

Another fact of the same import, and equally conclusive, is, that deep plowing which brings up the lime, and other mineral elements, from the subsoil, is equally a preventive of rust. The individual above alluded to, as having been so successful as a wheat-grower for the last fifteen years, has not been troubled with rust in that whole time, but he has plowed very deep, and brought up the subsoil, and to this he ascribes his exemption from a calamity which has often destroyed the wheat crop all around him.

Another fact, equally to the point, is, that the application of certain minearal elements to portions of a wheatfield, as a top-dressing, has proved effectual in preventing rust, while other portions of the same field, to which the application was not made, were destroyed. Whether the lime, in some instances, or the potash in others, which has proved thus effectual, or any other mineral element thus applied, operates to neutralize the deleterious effect of any particular element already in excess in the soil, or whether absolute deficiencies are thereby supplied, or both, the *effect* shows that nature's laws have been set at naught.

There are still other facts which stand out in bold relief in the history of wheat-growing in the West, and which have an imporiant bearing upon this very point. Who does not know, that all our great wheat crops have been consequent upon severe drouths, which caused universal alarm, and a general lamentation over the certain expected failure of the crop, and that the effect has uniformly been to check its growth, lessen the burden of straw, and increase the yield of wheat, which has come in with a well-filled head and plump berry, entirely free from rust?

The same effect is said, by our most intelligent and thorough far-

mers, to be produced by sowing wheat thick, say two bushels to two and a half, to the acre, the uniform result being small and bright straw, well-filled, though short heads, a plump berry, and increased yield; and what observing farmer has not noticed this effect of sowing thick?

Now, we think an explanation of these facts may be given, which will show them to be in perfect harmony with those above narrated; from which it seems evident, that rust is a consequence of the deficiency of certain mineral elements in the soil.

Is it not manifest, that the roots, which spread themselves out near the surface of the ground, can take up little or no nutriment in a drouth, there being no moisture, and that what nutriment the plant gets, must be taken up by those roots which penetrate downwards into the earth, below the influence of drouth, where there is little else than mineral elements for them to feed upon? Does not this fact, then, (the effect of drouth on the wheat crop,) known and acknowledged by all our farmers, come into the direct and powerful support of the conclusions drawn from those above given.

Again: who does not know that the thicker the crop stands upon the ground, the less the roots spread themselves out near the surface, and the more they incline downwards into the earth, and that this gives the plant a larger supply of mineral elements?

Not that there is a redundance of vegetable mould, or organic elements, (gasseous elements,) in our ordinary wheat lands; but on the other, hand, in respect to many of them, the reverse is the fact; but *with* them, a proportionate supply of mineral elements is indispensable.

From these varied considerations, then is it not sufficiently manifest that upon a perfect wheat soil there can be no rust? and that wherever this calamity occurs, there is a deficiency of certain elements which are essential to the perfection of the wheat crop? It is true that there is accasionally a season when rust prevails to a greater or less extent, almost universally, but not more universally than bad husbandry prevails. And always a manifest distinction is made, the crop upon some farms being totally destroyed, upon others, partially, upon others, still, it is but slightly injured, while some, here and there, escape the calamity entirely; and to what are we to ascribe the distinction? Manifestly to the difference in the soil.

Not that we suppose every farmer to be capable of such a nicety of discrimination in respect to soils, as to enable him in every instance, to bring his land up to the standard of a perfect wheat soil. But we may safely say that, by making a suitable use of the powers of observation which God has given him, he may come so near to it, as to be measurably secure against this calamity.

The individual above alluded to, as having so successfully escaped calamity from insect and rust, says, in reply to certain interrogatories we propounded to him: "I have said, and firmly believe, if the farmer fails to raise a good whet crop *every* year, on a good wheat soil, it is chargeable to his own slovenly and imperfect mode of cultivation. I have not failed," he continues, "for fifteen years. Some of my neighbors say, my good luck has rendered me so confident, they wish I might fail once."

Are these things so? Then how wofully do those farmers deceive themselves, who suppose that they are the victims of misfortune, and console themselves with the thought that they are suffering calamities which they could not help, not dreaming that they have the slightest cause to reproach themselves for having brought these calamities upon their own heads!

Suppose, then, you try the experiment—obey the law, give to mother earth her due, and see if she will not pour you out a blessing, such as you will scarcely have room to receive.

Do you say you would like to—that the thing looks very plausible, but still. that you are a little dubious—a little afraid to run the risk of a failure? Timid soul! What are you afraid of? *Afraid to obey the law*, and yet *not afraid* to venture upon the consequences of disobedience! Deluded man! One would suppose you had suffered those consequences sufficiently already, and that your very fears and apprehensions would drive you into the opposite course.

In the event of a failure, the calamity would indeed be very great. In making the experiment, you would be necessitated to make your land a hundred per cent more productive than it now is; and if, after all, the experiment should fail, and insects and rust should be just as troublesome as before, what a calamity it would be! The consequence would be, that another ten bushels to the acre, would be added to your wheat crop, even upon the supposition that the exper-

iment fails totally, and insects and rust continue their ravages as before—and that all your crops would be doubled, and that, too, with very little additional labor, and that your profits would be increased more than one hundred per cent—and what a calamity that would be! Hithertoo the farmers of Michigan, generally, have toiled like slaves in defiance of the law, in their devotion to wheat husbandry, and have not earned quite as much as they would have done if they had been at work out by the day, reckoning the price of wheat at an average of five shillings per bushel, and making due allowance for the use of the land—and, as a consequence, long years of disappointment, embarrassment, vexation and woe, have had to be endured. But, if they should try this experiment, and make a failure of it, they would be relieved of all their troubles, and rise at once into a new condition of things. That would be the sort of calamity which would come upon them.

And is the risk sufficient to deter you from entering upon an experiment, the *success* of which will put you in possession of so ample a reward?

Seriously, is there not something in this matter deserving your attention? O, it is enough to make one's heart ache, to look abroad and contemplate the present and past condition of the great mass of our farmers, as contrasted with what it might have been, and may still become!

Do you say that you would be glad to avail yourselves of the advantages thus offered, but that you cannot afford the expense of the necessary improvement of the soil, especially as you are already in debt? Far better can you afford it than you can afford to get along without it. How well you can afford to get along without it, and and what the prospect is of ever being freed from debt, and standing up a free man, your own sad experience as a wheat grower will teach you. But it may startle you a little to be shown, as we proceed, that it will require a less expenditure to enjoy all these advantages, than is required to keep up the present ruinous system.

Among the means to be employed for this purpose, we would enumerate, first, *deep plowing*, not only as opposed to shallow plowing, but to the whole system of summer-fallowing, and twice and thrice plowing, for wheat.

Nothing can be more ruinous to most soils, especially to such as constitute our best wheat lands, than the summer-fallowing system as practiced by our farmers, the whole tendency of it being to drive off, into the atmosphere, the organic elements of the soil. And here allow us to explain to some of you, what we mean by the organic elements of the soil. If, then, you will take a portion of soil, dry out the water, weigh it, and then subject it to intense heat, you will perceive that it has lost in weight from two to fifteen per cent., and that it has changed from a dark to a reddish color. What it has lost in weight, has been driven off by the heat, into the atmosphere, in the shape of gas, just as a large proportion of the substance of a stick of wood, consumed in the fire, goes off into the atmosphere, in the shape of smoke, which is gas. Well, the portion which is thus driven off, constitutes what we called the organic elements of the soil, and that which remains, constitutes its mineral elements, corresponding to the ash which results from the burning of a stick of wood. The organic part which has thus been driven off, consists of hydrogen, oxygen, nitrogen, and carbonic acid. These gasses were drawn originally from the atmosphere, and their effect is to impart lightness and porosity to the soil, and give it a dark color, this last effect, however, being from the carbon alone.

How, then, can it be otherwise, than that, by turning up three or four inches of the surface soil, to lie exposed to the burning heat of a summer sun, its organic elements should be dissipated? And how manifest is it, that the oftener the process is repeated, the more speedily the work of ruin is accomplished?

And there is a delusion about this matter, which deceives the unwary husbandman, end leads him blindfold to ruin. The first effect of this ruinous system, is to increase the crop, the mechanical effect being to make the soil more porous, at the same time that it is more exposed to the chemical action of the atmosphere. And the process of evaporation being gradual, the organic elements may not become so reduced, for a series of years, as materially to affect the growth of the crop. But still it is going forward, and the time is hastening on, when they will be so reduced; and then, no mechanical or chemical effect of frequent plowing, can make up for their loss.

The consequence is, that crops fail, and the deluded man wonders

what ails them; and just as likely as not, that, fearing he has not been thorough enough, he will add another plowing, and thus add still greater barrenness to the soil.

And most of our wheat lands in Michigan, even in their virgin state, are deficient in the very elements which are thus driven off. Upon lands having a deep vegetable mould, the same danger of exhaustation from this source does not exist.

Deep plowing cannot bring back the elements which have thus been driven off by shallow and frequent plowings, but it can stay the evil, by turning the surface soil so far under, that, if left undisturbed, their escape will be arrested, and there are other means of bringing them back, to accompany deep plowing, of which we shall speak in a subsequent part of this essay.

But there is another class of elements which deep plowing will restore, viz: the mineral elements, which, as we said, constitute the portion of the soil which is left, after being subjected to intense heat. These elements are lime, potash, soda, magnesia, iron, chlorine, magnese, sulphur, silica, alumina, and phosphoric and sulphuric acids. Two of them, viz: lime and phosphoric acid, seem to be more readily exhausted in soils devoted to wheat husbandry, than any others, and for two reasons. First, they are carried off with the crop, in common with the others, and never returned. Very seldom is so much as the straw returned, and the grain never. But of the mineral elements which enter into the composition of the kernel, these are the chief, and lime enters somewhat largely into the composition of the straw, and thus it is, that large drafts are made upon them both, by each successive crop, at the same time that they frequently exist, but in small proportions in the soil.

There is, moreover, a constant tendency in lime, and some other mineral elements, to sink into the subsoil. Thus have the productive properties of many a man's farm gradually sunk down into the earth, below the reach of his tillage, there to remain until brought into requisition to enrich his more fortunate successor—more fortunate, only because better versed in the great principles upon which depends all his success as a cultivator of the soil. And in addition to this, it may be remarked that the subsoil consists, almost exclusively, of mineral elements.

To enumerate all the instances of the wonderful effects of deep plowing, in renovating exhausted soils, which have fallen under our observation, would be impossible. A few only can be mentioned:

Last year, an individual in Hillsdale county, a clothier by trade, took a notion that he must have a farm, and made a purchase of one in the neighborhood, which was pretty effectually run down. Being a novice in the business, he sought advice of a neighbor, who was a scientific as well as a successful practical farmer, as to the best mode of cultivation, and was told, that if he would not throw away his labor, he must plow deep. He accordingly put his plow in deep enough to turn up the subsoil, and thus he plowed twenty acres of a twenty-five acre field, five acres of it having been plowed shallow, before he made the purchase. It was all sown to wheat, and the crop taken off at the late harvest—the deep plowed portion averaging twenty-five bushels to the acre, and the shallow plowed only about half as much.

Three years ago, an individual purchased a farm near the village of Dexter, so completely worn out that he was laughed at, and called a fool for giving five dollars an acre for it, although there was a good proportion of it improved, with buildings, &c.; and although so near a good market. He was told that he could not live upon it, and might as well not throw away his labor in making the attempt. He said it appeared to be naturally good, strong land, being a sort of clay loam, but that it had been skinned over, with one yoke of oxen, untill nothing more could be gotten from it, and it was regarded as worthless. But he put on his big team, and put his plow in ten inches deep, and his first wheat crop averaged him twenty-seven bushels to the acre; and he remarked to us that he had never had a poor crop upon the farm.

An instance not less strikingly to the point, we met with in Buffalo. A. Bryant, Esq., of that city, remarked to us, that the ground on which his nursery now stands, was so worn and exhausted when he bought it, that it was deemed absolutely worthless for agricultural purposes, and his first crop of oats scarcely grew six inches high. But he put his plow in to its utmost depth, and followed it with another plow in the same furrow, and then he had crops as stout as they could well grow out of the ground.

Since Mr. Linus Cone, the great wheat-grower of Oakland county, commenced his system of deep plowing, fifteen years ago, the average of his wheat crop has been more than double what it was before, taking one year with another, through the whole time.

Such are some of the instances of the beneficial effects of deep plowing, which we have met with in our travels, and they are but specimens of many others, equally striking, which might be enumerated. But these are sufficient for our purpose—enough to show that the wealth of a man's farm—its productive power—is, to a great extent, lost to its owner, who seeks it no more than four or five inches beneath the surface of the earth.

But here arises the objection with which we set out upon this branch of the subject, viz: that deep plowing is so expensive an operation, that a man of ordinary means cannot go into it.

And is this your plea? Do you say you cannot go into it because you cannot raise team enough? And what can you go into? Can you go into a system of summer-fallowing? If yu can, and do your summer-fallowing at the proper time, you can, as a general thing, go into a system of deep plowing, and with the same team; for seldom have we known a season, in this country, in which there did not come on a drouth just about the time the great summer-fallowing operation was going on, which packed the ground so hard as to make it almost impossible to plow it at all. We have known three yoke of oxen to be put to a single plow, to turn a furrow four inches deep, and they had hard work enough of it at that.

And this very system of summer-fallowing, has brought your land into this very condition—a condition to be affected in this manner by a drouth. We have shown you how it operates to expel from the soil its organic elements. We have spoken of their effect in giving looseness to the soil; and the consequence of their expulsion is, that the mineral elements which are left behind, settle and pack down into so hard and solid a state, as to be almost impervious to the plow. Such is the effect of this wretched system upon the soil.

But suppose you should have a real good time of it for summer-fallowing, even in that case, it will cost you more to put in your wheat upon that system, which requires at least two plowings, than upon the new system, which requires but one plowing.

One of the individuals above-named, keeps a regular farm book, and upon looking it over, not long since, we took occasion to foot up the items of expense incurred in putting in a twelve acre field of wheat, exclusive of seed, which was plowed ten inches deep, and passed over with the cultivator twice, and dragged; and the entire expense amounted to only two dollars per acre. And who of you ever put in an acre of wheat upon the old system, for two dollars' even, when you had a good season for summer-fallowing?

Say not, then, that you cannot plow deep. If you have team enough to summer-fallow your land in a dry time, four inches deep, then you have team enough to plow, generally speaking, ten inches deep at the time when it is required to be done. But if you have not team enough for either, it is a very easy matter for you to increase it by hiring, or exchanging, if you are not able to buy; and if there is no other way, you can safely do it upon the credit of the certain additional advantages it will bring you.

And suppose you have to run over a less extent of territory—had you not better put in fifty acres of wheat, and make a clear profit of from five to ten dollars on every acre, than to put in two hundred acres, and make an absolute loss on it, just for the sake of the honor of it? Can you afford to pay so dear for such a distinction? But you are too late in the day, even for that. The time has been, when the man who could count up the greatest number of acres in wheat, was the biggest man in all Michigan; but the time is coming round, yea, has already come, when such a man is regarded as the biggest blockhead. Dismiss, then, this foolish pride, plow half as much and twice as deep, and you will find yourself far better able to accomplish your task than you now do, and the one-half you now cultivate is as much as the true system of rotation will admit, as we shall see. But that word, "cannot." O how it sounds! "I *c-a-n-t!*"—leave such talk to children.

O, it is *soul-sickening*, it is *amazing*, to see to what extent the great mass of our farmers are wedded to a system so enslaving and so ruinous—a system which wears out the energies of both man and beast, under the scalding heat of a summer sun, and all for nothing, and worse than nothing!

There are other ways in which deep plowing produces its effect, besides the one mentioned. It facilitates the downward progress of

the roots, giving them access to the mineral elements below, as well as to those which are turned up, and thus places the crop beyond the influence of drouth, at the same time that all its advantages to the crop are secured, without its disadvantages. It also opens the way for the free admission of air and heat to a greater depth in the soil, and in various other ways exerts a beneficial effect.

It would not, of coure, be proper, however, to turn up the subsoil to an equal depth in all soils, alike. A light, sandy soil, for instance, would probably not be benefited by it. But no soil will be injured by loosening the subsoil with a subsoil plow, to almost any depth, and most soils would be greatly benefitted by it. In none of the instances above cited, was the subsoil plow used. The depth of the furrow should vary, of course, with the depth of the surface soil. It must be a pretty deep, strong surface soil, which would require a depth of ten inches at the first deep plowing. In the shallower soils, the happiest results would not be realized by plowing so deep the first time, and in some instances, the crop, the first year, may not be so good for it, too much of the subsoil over-lying the surface soil. The good effect, however, will follow, upon intermixing the two in subsequent years.

It should be borne in mind, however, that neither deep plowing with the common plow, nor subsoiling proper, can be practiced to any sort of advantage where stagnant water is retained in the subsoil, as it is in all clay subsoils. As the expense of thorough draining is considerable, and it cannot readily be done at once, a very good temporary expedient is, to plow the lands in the direction the water would naturally run off, so arranged that the dead furrows will be about three rods apart, which are to be deepened and cleaned out with the plow and shovel, after the wheat has been sown, to the depth of eighteen or twenty inches. This has been found to be effectual in removing the stagnant water.

Another means to be relied on in bringing up our lands, is *a rotaton of crops*, particularly of wheat with clover, manured, upon our light lands, with plaster. And here we would remark, that although, for the sake of convenience, we speak of the effects of deep plowing and clovering, separately, yet, generally speaking, the two causes combined produce the effect, for those who plow deep, generally, turn under clover.

We have spoken of the ruinous tendency of the old summer-fallowing system, to drive off the organic elements of the soil into the atmosphere, and promised to tell you how to bring them back into the soil again. It is by means of the clover plant. At least the greater portion of them may thus be restored. If you will burn this plant, in a dry state, you will find that a greater portion of it has evaporated into the atmosphere, in the form of gas, and that but a small proportion of it remains in the form of ash. All that portion which went off into the atmosphere, was derived from that great reservoir of these elements, and most of it through the leaves, the greater portion of it consisting of carbon, in the shape of carbonic acid. It has been proved, by repeated experiments, that common air, after having passed through the foliage of a growing plant, is robbed of its carbonic acid, that portion of the atmosphere having been attracted and absorbed by its leaves as it passed. And thus it is that most of the carbon (charcoal,) which goes to make up more than half the bulk of all vegetables, is supplied. But few plants seem to have the capacity to absorb and appropriate food from the gases of the atmosphere, to the same extent as the clover plant.

And thus does this noble plant perform its high functions, spreading its foliage to the breeze, arresting the fugitive atoms as they pass incorporating them in its own organization, and when turned under, giving them back to the soil again, and thus a fertility is often imparted to the soil which it never knew before.

Nor is this the only way in which the clover plant performs its office as a renovator of the soil. Not only does it seek its food in the fleeting winds, but sends its long tap root far down into the earth, sometimes to the depth of three and even four feet, there to drink in those mineral elements, such as lime, potash, &c., which it craves for food, and which are thus brought up and added to the soil, so that this plant performs, in its measure, by means of its roots, the same office for the soil which deep plowing does, imparting to it the same elements, and from the same source.

Some have expressed the apprehension, that the ultimate effect of clovering would be to increase the bulk of straw, and lessen the yield of wheat. As we have seen, such an effect results only from there being an undue proportion of vegetable mould in the soil, and a lack

of mineral elements, such as lime, potash, phorphoric acid, &c. But, from an analysis of clover and wheat, by Dr. Lee, and others, it appears that all the mineral elements except silica, are found to be far more abundant in the clover than in the wheat plant. The following table shows the proportion in each, according to an analysis instituted by the gentleman above named. According to this analysis, there needs to form both the seed and the straw of an acre of each (of ordinary yield,) of

	WHEAT.	CLOVER.
Phosphoric acid,	17 lbs.	18 lbs.
Sulphuric "	2 "	18 "
Chlorine,	1 "	7 "
Lime,	17 "	70 "
Magnesia,	13 "	18 "
Potash and soda,	24 "	77 "
Silica,	115 "	15 "

Thus it appears that all these mineral elements, except sand, the clover plant supplies more than the wheat plant takes away, and one of them, which, perhaps, is the most important of all, viz: lime, it supplies four times the amount which the wheat crop requires. And these elements are drawn, to a great extent, from a depth where they previously lay in an unavailable state. There is a deficiency in the quanty of silica, or sand, which the clover plant furnishes, but in this there is no deficiency in our ordinary wheat lands, except that it exists there in an insoluble, and therefore unavailable state. But if the clover plant furnishes the material to dissolve it, it does the same thing as to supply it, and this is just what it does. Potash is the very element to bring it into requisition, and of this element the clover plant furnishes three times as much as the wheat crop requires.

While the clover thus largely exceeds the wheat crop in the mineral elements it contains, it also furnishes a somewhat larger amount of all the organic elements, drawn mostly from the atmosphere, viz: carbon, oxygen, hydrogen and nitrogen. Of nitrogen, the clover crop contains two and a half times as much as the wheat crop, and this is an element more frequently deficient in the soil, more difficult to be supplied, and we may add, more important to make the other elements available, than, perhaps any other, although it is found only in the small proportion of 32 lbs to an acre of wheat.

From this analysis, the reason why clover exerts so powerful an agency in imparting fertility to light, sandy lands, more especially, is sufficiently manifest. It shows, also, why it is that the first crop of clover may be removed for hay, and the second turned under, and not only *not* impoverish the land, but enrich it.

Here, then, you have in the heavens above and in the earth beneath, the materials for enriching your lands to almost any extent you may desire, and they are offered to you free as the air you breathe, without money and without price. You can have them for the mere taking of them, and what blessing can you ever have without the trouble of taking it?—even salvation, free as it is, cannot be had at a cheaper rate than that.

As you have seen, you can avail yourself of the mineral elements of the sub-soil for your wheat crop, for less than it will cost you to do without them. And you have the organic elements, which have taken wings and hied themselves away into the atmosphere, *captured, chained* by chemical affinity, and brought back in triumph to the soil by means of the clover plant, at just as little cost—all except a small portion of them, which is supplied through the roots.

But you say you are not able to go into a system of clovering, because you are not able to buy seed, and await the result—and just so you said about deep plowing, because you was not able to raise a team. But you see you was able, and all that was necessary was for you to think so—and it is just so in regard to your ability to buy clover seed. Let us see—can you make a shift to raise six shillings? If not, you had better give up farming and go into some other business; probably you would do much better to work out by the day. If you can raise that amount, you can buy clover seed enough to stock two acres of ground, from which, another year, you may gather seed enough to stock thirty acres. Or, if you cannot raise six shillings, can you raise eighteen pence? That will buy seed enough to stock half an acre, which, next year, will give you seed enough to stock seven acres and a half, and the year after, you can stock a hundred acres, Yes, with an outlay of eighteen pence in money, you can have a hundred acres to clover in three years, and that will be the entire outlay, for the benefit you will derive from the clover in the meantime, in pasture and hay, will, without interfering with the ar-

nual crop of seed, more than compensate you for all the labor you may bestow upon it, and you will get your eighteen pence back into the bargain. A system of clovering then, will pay its own way from the start, independently of the subsequent advantages it will bring you.

But just take a glance at those advantages. Upon the old system, you throw away the use of your land one half of the time, at the same time that it is constantly running down; whereas, the new system, while it is constantly increasing the productive properties of your land, gives you the use of it the whole time.

To prevent a failure of the clover crop, from lack of germination, or from the effects of drouth in the early stage of its growth, and to secure to the young plant a vigorous growth, the seed should be soaked in tepid brine, fifteen to eighteen hours, then rolled in plaster, sown upon the wheat field and rolled in, in the spring. The rolling will greatly benefit the wheat crop, by pressing the roots down, and packing the surface. Dragging it in, would also be highly beneficial to the wheat crop, if it is unthrifty. So says one of our best farmers.

Upon the true system, your land is sown to wheat every third year, to be seeded the same year to clover, which is to occupy it the two intervening years. As the second crop of the last of these two years, is to be turned under, preparatory to the wheat crop, it will give a year and ten months to the clover, and a year and two months, out of the three years, to the wheat crop.

Now mark—the three years, devoted in this proportion to clover and wheat, would, upon the old system, produce just a crop and a half of wheat, two years to a crop being required. But a crop upon a clover sod, with the clover turned under by deep plowing, will produce more than a crop and a half upon a summer-fallow, on our common wheat lands; and, of course, a year and two months, upon this system, will produce more wheat than the whole three years upon the old system.

A farmer in Oakland county, who has carried out this system more fully than any other within our knowledge, has thus increased his wheat crop almost three-fold—about trebled it.

And, besides all this, there is the saving of the expense of putting

in and harvesting the half crop of wheat, out of the crop and a half which the three years gives you, upon the old system, for you get a larger amount of wheat from the one crop, and of course save all the labor and expense bestowed upon the additional half crop which the old system gives you, and which saving, added to the profits of the one crop upon the new system, would strike the balance still more largely in favor of the new system.

Thus you see, if the year and ten months devoted to clovering is not taken into the account at all, farther than it is subsidiary to the wheat crop, you will be, beyond all comparison, the gainer, by going into a system of clovering.

As we have seen, upon the old system, the business of wheat growing scarcely pays its way; whereas, under the new system, it rises high up in the region of absolute profit—all that is thus added to it per acre, being, with trifling deductions. just so much clear gain.

The profit on an acre of wheat, upon the new system, would of course vary with the native strength of the land, and the degree of culture which has been bestowed upon it. According to the farm book of one of the individuals above named, the average of his wheat crop upon a certain twelve acre field, managed very nearly upon this system, has been forty-three bushels to the acre, for the last twelve years. His book also shows, that the entire expense of putting in the crop, including the seed, has not exceeded two dollars to the acre. But suppose we call it twenty shillings to the acre, and add as much more for harvesting, threshing, &c., making five dollars to the acre outlay. Suppose the price of wheat to be six shillings per bushel, the avails would be $32 25; from which deduct the five dollars outlay, and two dollars per acre for the use of the land a year and two months, and you have the snug sum of $25 25 left, clear profit. Do you say this is an extreme case? Not by any means as extreme as persons who have only seen the working of the old system, would be apt to imagine. But admit it to be so—make all the deductions you can—whittle down the profits one-half, and is there not enough left to give the new system immeasurably the advantage over the old? We will merely add that the soil of the field above alluded to, is a clay loam, and yielded about fifteen bushels to the acre when the ameliorating process was commenced.

And then, when you come to add the profits of the year, and ten months devoted to clover, the difference between the two systems becomes so great, as to place them in direct contrariety to each other, so far as loss and profit are concerned.

Some have even gone so far as to say, that the clover crop is as profitable as the wheat crop. This is doubtless true under the old system, but not under the new. But still, the avails of the clover crop would make no inconsiderable figure in the grand aggregate of results.

Just consider, that by this system you make your farm a great stock farm, as well as a great wheat farm, almost two-thirds of it being constantly in grass, and only a little more than one-third of it in wheat—and thus, in case of the failure of the wheat crop, you have other dependencies on which to rely.

The value of a crop of clover is estimated at five dollars per acre, for pasture or hay, and about the same for seed. But a clover crop devoted to seed, can be pastured till the middle of June, and then again after the seed is gathered; or the first crop may be taken off for hay, and the second left for seed, in which case the profit per acre could not, ordinarily, be less than seven or eight dollars—but this would be just seven or eight dollars per acre more than has ordinarily been realized from the wheat crop under the old system, if statistics tell the truth, to say nothing of the loss of the use of the land one-half of the time.

In addition then, to the immensely greater profit upon your wheat crop, under the new system, you have all this extra profit, of from five to seven or eight dollars per acre each year, for the use of your land between the wheat crops, which, under the old system was thrown away, and you have it for the mere taking of it.

You see, then, how much less it will cost you to go into a system of clovering, than it will to try to get along without it, *as much less*, as the entire profit of your clover crop, together with the immense profit which is added to your wheat crop—and can you afford to keep up the old system at such a cost?

In a letter recently received from an individual who has thoroughly tested both the old system and the new, a reply is given to the inquiry, whether the first crop of clover cannot be removed for hay,

add the second pastured the first year, and turnod under the second, preparatory to the wheat crop, and the land at the same time be constantly improving. The reply is, not only in the affirmative, as we expected, but that removing the first crop for hay, is better for the land than pasturing it the whole time, as we did not expect. The reason given is, that "the roots of clover are much larger when suffered to grow for hay, than when pastured, and consequently that they contain more elements of fertility to be decomposed in the soil." We are aware, as he remarks, that this is the opinion of some of our most distinguished agriculturists; but we are inclined to the opinion, that if it can be fairly made out, that it is *as well* for the soil to remove the first crop for hay, as to pasture it, it is claimiug quite enough for the benefit derived from the increased size of the roots This view of the subject is in harmony with the conclusion we derived above, from the analysis of the clover plant.

In regard to the effect of turning under clover upon prairie land, there seems to be some difference of opinion among those who have practiced it; but there would probably be no difference of opinion in regard to its beneficial effects, even upon the deepest prairie soil, if it were turned under deep enough. We know a farmer upon Prairie Ronde, whose expectations from turning under clover were disappointed, but he turned it under only four or five inches deep. We know another upon Genesee Prairie, and another still, upon Portage Prairie, whose highest expectations from it have been fully realized, their wheat crops having been vastly increased by it; but they turned it under some ten inches deep—and th at made the difference. And even when clover is turned under shallow, upon such soil, however injurious it may appear to be the first year, the *good* effects of it will doubtless be experienced in subsequent years. That it should be prejudicial the first year, when turned under shallow, is no more than might be expected, especially in a dry season. Indeed, clover turned under shallow, upon any soil, will be injurious to a crop the first year, if the season be dry, there not being moisture enough in the soil to decompose it; but more especially might such be expected to be the effect upon prairie soil, which is naturally very loose and porous.

From the analysis of the clover plant above given, as compared

with that of the wheat plant, is it not manifest, that the former supplies the very mineral elements needed for the perfection of the latter, in which prairie soil is deficient—descending downwards into the earth, and there seeking them out and bringing them up? It is true, there is one exception, silicia, or sand, being supplied but in small proportion by the clover plant. But then there is no lack of this element in most prairie soils, to meet the exigencies of the wheat plant, if brought into requisition—what is wanting, is something to dissolve it, and this very element, as we have seen, is largely supplied by the clover plant.

It is true, that the clover, turned under, gives to the soil a somewhat larger supply of organic elements, or those elements which predominate in vegetable mould, (and which are already in excess in prairie soils,) than the wheat crop takes away. But it must certainly be more than an offset to this, that at the same time, it gives mineral elements, (the elements in which prairie soils are deficient,) in a *far greater* proportion, so that, on the whole, there is a large gain of these elements to the soil.

We may remark, in this connection, in reference to the system here recommended, that it fits the land for an equally increased production of any other crop than wheat—as corn, oats, barley, &c. And we may further remark, that by turning under the clover sod in the spring, (of the year wheat is to be sown,) a rich crop of corn may be taken off, and the land be left in a good condition for a wheat crop. The corn crop, however, cannot be removed, upon a large scale, in season for putting in wheat, although it may be done to as great an extent as most farmers embark in the corn crop. To obviate this difficulty, some farmers have planted the rows of corn eight feet apart, sown their wheat between them, and harvested the corn afterwards. A still better way, is first to cut up the corn and stook it up, several rows in one. The spring plowing should be deep. And those who have been thorough, cultivating the land and keeping it clean, have said that they realized as much corn as they would to have planted the rows the usual distance, while the labor and expense of putting in the wheat, has been reduced to the mere matter of cultivating it in.

We have said, that upon all our lighter soils, the clover crop should

be manured with plaster, and we may add, that there are few soils that are at all adapted to wheat-growing, upon which a dressing of plaster would not be beneficial to the clover crop. Upon the lighter soils, it is indispensable, and upon all soils it is highly beneficial, except those which produce this crop in sufficient luxuriance without it, which are rare.

It has been generally thought, that the application of plaster directly to the wheat crop, was not beneficial. "Plaster makes the clover, and clover makes the wheat," has been the motto; but some recent experiments seem to show that the general impression on this subject, is, to some extent at least, incorrect. We know of three or four of the best farmers in the townships of Dexter and Lima, Washtenaw county, who have satisfied themselves, from repeated experiments, that a dressing of plaster increases the yield of the wheat crop three or four bushels to the acre. On some soils, however, the crop might not be benefitted by the application. Every farmer should try the experiment on a small scale.

The use of the drill in putting in wheat, seems to be attended with highly beneficial results, and should, we think, be adopted, wherever practicable. Wm. Burnett, Esq., of Washtenaw county, foots up the expense of putting in wheat with the drill, as compared with the ordinary method, and makes a difference of about seven shillings per acre in favor of the former, and says that his drilled wheat was much better than his undrilled, although he did not thresh it separate. The drill he used was manufactured at Ann Arbor, and cost only twenty-five dollars. Mr. B. remarked that it worked well on land somewhat stony and stumpy, the teeth being strong enough to stop the team when they met an obstruction

Col. F. W. Curteneus, one of the most intelligent and successful farmers in Kalamazoo county, in reply to certain inquiries we made of him by letter, in respect to the use of the drill in putting in wheat, says: "My firm convictions are that, in ordinary seasons, the excess of wheat obtained from the use of the drill, over the broad-cast mode, will defray the entire expense of putting in, harvesting and threshing the crop;" and adds, "men may write me down *crazy* for making such an assertion, yet figures, which never utter falseeoods, uphold me in it."

Among the numerous instances which have fallen under observation, however, we have found considerable difference in the degree of superiority which the drilled wheat exhibited over the undrilled, upon different farms, even in the same neighberhood; but uniformly there was manifestly some superiority, and generally a very marked one. In but few cases did we observe apparently as small a difference as in a field of wheat, part of it drilled and part of it undrilled, upon the farm of A. Y. Moore, Esq., of Prairie Ronde. It was harvested, threshed, cleaned and bagged in the field, all by one operation, with his mammoth Harvester, and he found by exact measurement, that the drilled portion yielded a bushel and a peck to the acre more than the undrilled. Striking a medium between the two extremes, we thing it safe to calculate on a difference, including the saving in putting it in, of two dollars and fifty cents per acre in the avails in favor of the drill.

If no more than that had been added to the proceeds of the wheat crop, under the old system, it would have ushered in a new era in the history of wheat growing among us, for then the business would have risen just so far up in the scale of profit.

One of the material advantages claimed for the use of the drill, in addition to the above, and reasonably so, is the security it affords to the wheat crop against winter killing, the kernel being covered deep, which gives it a deep-set root, and the plant standing in a furrow, which is constantly filling up, and thereby constantly deepening the roots. It also secures the germination of the seed. so that much less is required.

In regard to the proper time for sowing wheat, many farmers make great mistakes. The seasons are very variable, and sometimes the variation is so great as to make late early and early late. These variations make what are called early and late sowing quite hazardous. In July last, we saw two fields of wheat upon Prairie Ronde, located on opposite sides of the road, the land being similar in quality, and the preparation and putting in the same, but the one was sown the latter part of August, and the other about the 10th of September, or soon after. But the difference between the two fields was very striking, the early sown promising a yield of 12 or 15 bushels to the acre, and that sown the 10th of September 30 bushels. In

the fall the early sown field looked much the most promising, growing very rank, but in the winter it was all killed down to the ground, which was covered with its lifeless remains as with a mat. It came up again from the root in the spring, but never recovered its vigor. The season, it will be remembered, was an uncommon one, greatly favoring the growth of vegetation, and continuing so till late in the fall. The season previous was directly the reverse, and wheat sown thus early did well. We met with a similar instance in Cass county.

It may be said that feeding early sown wheat down, will operate as a preventive of any such consequences. It doubtless would prevent its being killed down, if fed pretty close, but we deem it impossible, upon the principles of vegetable physiology, to feed it down close without some injury to the crop—how much it is difficult to know, of course, but doubtless much less than to have it killed down to the root. The leaves are the lungs of the plant; they are also the stomach or laboratory in which the process of assimilation is carried on—that is, after the first stage of its growth, and when deprived of them, how can it be possible that the plant should not suffer, notwithstanding all the advantages it may derive from the enlargement of its roots?

It is, moreover, to be considered that no large wheat grower can possibly make a raise of stock enough to make much impression upon his immense wheat fields, after they have attained to a luxuriant growth, as they always do, before the idea of feeding them down begins to be entertained.

Equally calamitous, and even more so, has late sowing proved to the wheat crop, and it is getting to be pretty well understood by our farmers that, if their wheat does not come forward so as to spread itself pretty well over the ground in the fall, they run a very great risk of losing their crop by rust. This, if our argument be correct, will not be the case when the soil is put into the right state. But as matters now stand, the prospect of a failure is reduced almost to a certainty.

In view of these considerations, it would seem manifest that a medium time for sowing wheat should be chosen. That medium we deem to be from the 10th to the 20th of September, in this climate.

In regard to the preparation of the seed, something may be said.

That steeping it in brine and then rolling it in lime is a very decided advantage, we have no doubt. That it is a preventive of smut, even when smutty wheat is made use of, is the testimony of all who have tried it. That it should operate, at least to some extent, also as a preventive of rust—that is, if a sufficient quantity could thus be applied—is rendered probable from the considerations already given. And then its effect upon the growth and perfection of the plant is decidedly beneficial, both salt and lime being the best of fertilizers for wheat. Hence it is observed that wheat, from seed thus prepared, presents a much more vigorous growth, insomuch that its superiority over wheat by its side, from seed not thus prepared, is plainly visible. We have met with wheat-growers who had satisfied themselves by a series of experiments, that such a preparation of the seed made a vast difference in the yield of the crop. D. B. Brown, Esq., of Ann Arbor, estimated the increase of yield resulting from such a preparation of the seed, at one-third. This, to be sure, is too great a difference to expect in ordinary cases, but we can readily conceive that upon some lands it would be equal to that proportion of the crop.

That harvesting wheat at a much earlier stage than has been customary, is a very decided advantage, we have no doubt. Experiments have placed the matter beyond question, that wheat harvested in the doughy state will weigh much heavier and make more and better flour than when it stands until it is dead ripe; and in addition to this, the straw is of considerable value for stock, although it is far more valuable to be returned to the field and plowed under, as is practised in England and Scotland, and by here and there an individual in this country, and should be by all.

In reference to the effect of cutting wheat at this stage, upon the yield, J. Hannam, Esq., a farmer of Yorkshire, England, has made a series of experiments which place the matter in a very striking light. As the result of these experiments, he found that wheat harvested three weeks before fully ripe, yielded eight pounds more to every one hundred pounds than wheat which was fully ripe—that is, almost five pounds to the bushel. Suppose only three pounds to the bushel are thus saved, to this is to added the loss from shelling, which is also saved, and the increased value of the flour.

Wheat designed for seed, however, should by all means be suffered

to stand until fully ripe, a degeneracy of the plant being the certain consequence of making use of unripe seed. An intelligent farmer of Oakland county says, in a published statement, that he formerly made use of unripe seed wheat, and always had smut; but for several years past he has been in the habit of letting his wheat, designed for seed, stand until fully ripe, and he has had no smut since he commenced the practice.

We hardly need add that seed wheat should be entirely clear of the seeds of all foul stuff. This will require some trouble; but no labor can be more usefully bestowed, as the experience of all wheat growers testifies.

We have said that the system of wheat growing here recommended, will make your farm a great stock farm as well as a great wheat farm, and thus in the event of the failure of the wheat crop, you would have other alternatives on which to rely. And as the clovering is to be made subservient to wheat growing, it is important to inquire what kinds of stock would be most conducive to the same end.

And to this inquiry there can be but one answer, viz: that the stock for a wheat farm are, first sheep; and, second. young stock, embracing both neat cattle and horses.

The working ox and horse drop a great portion of their manure out of the field. The dairy cow does the same, and in addition to that, carries off in her milk, never to be returned, some of the most important,and at the same time most easily exhausted elements of the soil, particularly the bone-forming elements, Providence having taken care that the mother's milk shall partake largely of these elements, for the formation of the bones of her young.

In this way, old pastures on which dairy cows have fed for a long series of years, become so far robbed of their bone-forming elements, that cows feeding upon them have become affected with what is called the bone disorder, which consists of weakness of the bones, from want of the proper elements of nutrition in their food to keep them in repair —which disorder is readily cured by administering bone dust. A few years ago, the milkmen of Paris undertook to get up a counterfeit kind of milk; but, unluckily, these dabblers did not get any bone forming elements into it, and the consequence was, that all the children in Pa-

ris who were fed upon it, became affected with the bone disorder, insomuch that that they could not stand upon their feet.

These bone forming elements, the principal of which are lime and phosphoric acid, constitute the chief part of the mineral elements which enter into the composition of the grain of wheat, and of course their exhaustion from the soil by dairy cows, must be fatal to that crop.

The rearing of young stock is far less prejudicial to the soil than either the working ox or horse, or the dairy cow, from the fact that their manure is all dropped in the field, and nothing is carried off in the form of milk. Still, they make something of a draft upon the soil for the elements necessary to the formation of their own bones, and their increase of size, which of course depreciates the value of their manure.

In the case of sheep, still less is abstracted from the soil, never to be returned. Indeed, nothing is taken off—all is left upon the field except what little is necessary to the formation of the bones of the lambs of the flock and of the wool, which is scarcely appreciable. And furthermore, according to an analysis given in Dana's work on manures, the dung of the sheep contains a little more than three times the amount of mineral elements which are to be found in that of neat cattle, and also much more nitrogen. These we suppose to be the reasons why sheeping land forms so good a preparation for the wheat crop. In addition to this, sheep are highly useful in keeping land clear of foul stuff, and to a certain extent, even of grubs.

At the same time, the proceeds of no other kind of stock will yield a larger return or more readily command cash.

Supplement to the foregoing Essay.

BY THE SAME.

The foregoing essay, though long, is entirely too short; in some instances, apparently necessary illustrations are sacrificed to brevity, while some important things are omitted altogether. Some of the more important of these defects we shall here supply.

In writing it, we endeavored to consult the peculiar circumstances, wants, and necessities of the farmers of the West—and we are free to say, that, to some extent, we have also consulted their weaknesses, their prejudices, and their folloies, as the only possible way of approaching them.

We refer more particularly to the strong repugnance of our people to manuring, with here and there a solitary exception, which repugnance is partly right and partly wrong—right, considered in reference to the application of eastern systems to the west—but wrong, totally wrong, wrong in every aspect of it, as opposed to the use of appropriate means for the improvement of the soil.

What is the use in talking to our farmers about guano and bone dust, *et id genus*, with discussions upon which eastern agricultural papers are very properly filled? Go talk to the idle wind—they will not hear you. If you would drive them irrecoverably away, and shut out all hope of improvement, then urge upon them the use of those expensive manures, resorted to at the east—the very term manure, in its most acceptable application, being more offensive to the prejudices of many, than the fumes of the dung heap are to their nostrils. They must have something more accessible, and less expensive, and must be led into a system of manuring by easy steps, and almost without knowing it, certainly without feeling it, or they will not be led at all, and our lands will go down, down, *down*, until the fair and fertile fields of the west shall become a barren waste.

These are facts open to the observation of all, and in view of them, we deem the system we have recommended, the only practicable one—the only one which is at all accessible to the mass of our farmers, and the only one which they could be induced to adopt, and, at the same time undoubtedly the best they could adopt.

But will this system last always—do you ask? We answer, in the first place, that whether it will or not, it is not designed to supercede the use of other manures. It is recommended, not only as the best and cheapest system of manuring which our farmers can adopt, but in the hope that its beneficial results will operate to abate their repugnance to manuring in other forms, and in every accessible form, and lead them into a general system of husbanding and applying their manures.

This, as matters now stand, is a very unfashionable, low, and ungenteel business, most of our farmers appearing to feel themselves entirely above it. But they will be cured of this, when they come to learn that the application to the soil of their manures will put money in their pockets—that their manure heap is a mine of gold—nay, that it will pay a greater interest than gold—and learn it they will.

And what is manure? Suppose you were to enter a dining room, pinched with hunger, and impatient to satisfy its cravings—as you looked wistfully around upon the loaded tables, would you need any arguments to convince you that the supply of food before you was better suited to your wants, than if there had been only a few crumbs? Well, what those loaded tables would be to you, your manure heap would be to your crops—if they could only get it. It is their appropriate food, the victuals for which their hungry mouths are ever open; but they cannot go to it—you must carry it to them, and feed it to them, as you feed corn to your hogs, and you will find it a far more profitable business than that.

Some farmers seem to suppose that nothing is manure but the dung heap. That is a deformed idea. Anything is manure that furnishes victuals for your crops, beyond what was already in the soil. But what have we said? We fear we have turned the stomachs of some of you against clovering, not that you have found out that *that* is manuring.

Well, it is a very pretty way of manuring—it will neither soil your pretty fingers, nor disturb your olfactory sensibilities. How clean and nice, and how beautiful to behold is the clover field, clothed in its flowering beauties, and how grateful its perfumes, borne to you upon the passing breeze, as you go whistling along at the plow-tail!

And you need not call it manuring, if it does not suit yonr taste, nor need you call your dung heap, manure—call it crop-feed; and when you give it out to your crops, call it not manuring, but feeding them. Would not that make it a much prettier business?

But the question recurs—will this system last always, independently of other manures? We answer again, that it has lasted, and lands have been constantly improved under it, as long as it has been tried. Bear in mind, howeeer that it is not to be confounded with the shallow-plowing system, either with or without clovering.

Again, we answer, that, as a general thing, we see no good reason why it should not last, we will not say always, nor will we say how long. True, indeed, the deeper the plowing, the more the mineral elements of the subsoil are drawn upon by reason of increased crops; but it is to be considered, that the available supply of these elements is proportionably increased by reason of the free admission of air and heat among them, to facilitate their decomposition, and that thus there is an increased supply, in a state of solution, to meet the increased demand. And when it is further considered, that the subsoil is made up almost entirely of mineral elements, (although a portion of them are insoluble,) and further still, that when the subsoil is sufficiently loosened, plants draw nutriment from a depth of at least four feet in the earth, it may well be supposed that all the soluble elements contained in that depth of earth, would be a long time in being dissolved and used up for the food of crops. And another consideration still—in proportion as they are used up, so as to diminish the thickness of the four feet of earth from which they are drawn, is another layer of subsoil still below it, added to it—if such a diminution is to be supposed.

Do you ask what evidence we have that plants draw nutriment from that depth? In reply, we would say that the roots of some plants, as the clover plant, and some others, penetrate to that depth, under favorable circumstances. But if the roots of plants do not ordinarly reach half that distance, the mineral elements which lie there, will be brought up to them in solution in the water which ascends by capillary attraction, and ascends more or less freely, according as the earthy medium through which it passes, is loose and porous, or compact and solid. This is the reason why loose, sandy soils stand

a drouth so well, and why stiff clay soils are the first to suffer from drouth. It is on the same principle, that a sponge becomes saturated with water upon bringing its under edge in contact with that fluid, the water ascending through all its pores. This is called capillary attraction, and it is a well ascertained fact, that its influence extends at least four feet into the earth. And thus deep and subsoil plowing increase the supply of mineral elements, not only by hastening their decomposition, but by facilitating their ascent from below, by attraction, as well as by means of the clover root.

We admit, of course, that even under these circumstances, a long course of cropping with wheat, no oftener than once in three years, may so reduce the phosphoric acid, lime, potash, &c., as to affect the crop. And in view of the liability to such a contingency, as free a use as possible of manures containing these elements, should be made; and indeed, as we have said, no means either of restoring the elements drawn from the soil, or of adding to them, can be safely neglected.

And one word here in regard to clovering. Whether it is the better way to turn under the crop, or to feed it down, and give the land the benefit of the manure which is dropped in consequence, there is a difference of opinion, although most farmers who have tried both ways, give the preference to the former. And we think the argument preponderates in its favor. It is a fact, of which any one who takes the pains, may satisfy himself, that the roots of the clover plant grow much larger when the top is suffered to attain to its full growth than when kept pastured down, and it is from the decomposition of the root that much of the benefit to the soil results.

Again, less than one-half of the substance of the clover consumed by the animal, is voided in the excrements, while the other portion, (from 55 to 60 per cent.,) most of it goes off into the atmosphere in the breath of the animal, as the result of chemical changes which are carried on to keep up animal heat, and a portion of it is of course appropriated to repairing and building up the system. These things being so, it would seem to be manifest that the greatest benefit must result from turning under the crop.

The idea that a grass crop of any kind becomes better fitted for the food of plants by having been consumed by the animal and void-

ed as excrements, is entirely erroneous. No possible thing can be added to it by such a process, while much that is valuable is taken away. In a state of decomposition, the same elements appear in both cases, except that in the excrements, some of the elements are found in far less proportion than in case of decomposition by natural decay, which makes them, of course, less valuable for manure, than the entire crop in a state of decay. True, in this process of decay there is, to some extent, an escape into the atmosphere of the same elements, though to nothing like the same extent. These have ever been our views, and we are gratified to find them most ably sustained in an article published in the Transactions of the Scientific and Agricultural School, Kennington, London, by Sir John Oakley. How groundless, then, is the idea, that the clover crop turned under, can, under any circumstances, sour the land, any more than the stable manure made from it, would!

This being so, we arrive at the conclusion that, turning under a green crop is a spedier way to manure land, than to feed it out in hay and return the excrements; that is, the excrements from the hay that came from the land, and no more; and this is in accordance with observed fact.

But the excrements returned will enrich a meadow, and make the next crop superior to the preceeding, and that too, when a portion of them (more than half their weight) have been left behind, and when the roots are still alive and require feeding, instead of yielding nutriment by decomposition. How much more, then, should the land be enriched, when an entire crop in a state of decomposition, is given to it—not only the entire top, but the root. also, the decomposition of which, some think, adds as much to the soil as that of the top?

In reference to the propriety of seeding to timothy, or timothy and clover together, instead of clover, we would say that we do not esteem it profitable. Not that we suppose the common objection against it, that it chokes out the wheat crop, to be incapable of remedy. Deep plowing will, in most cases, obviate that difficulty. We have met with a number of farmers who testify from their own experience that they have found that turning timothy sod under deep, is an effectual cure for the evil.

But timothy does not possess the same power as the clover plant

does, of drawing nutriment from the atmosphere; it does not exert the same mechanical effect upon the soil, to make it loose and friable; it does not penetrate to the same depth, by far, to bring up the mineral elements of the subsoil; nor does it, by its decomposition, either of its top or its root, give to the soil any thing like the same amount of elements essential to the perfection of the wheat crop.

Upon most of our Michigan soils, if timothy and clover be mixed in three or four years, the former will run out the latter, leaving a tight-bound timothy sod to be turned under. A good crop of wheat, however, may be raised upon timothy sod, if plowed in season to decompose, and plowed deep, but not so good as upon clover sod.

In regard to once plowing for wheat, a word more needs to be said. Here comes a man in whose soil clay predominates, and underneath which lies a pretty stiff clay subsoil, and he opens his mouth and says, "you need not talk to me about once plowing for wheat; I tell you it won't do; my soil cannot be pulverized by once plowing." And no wonder—a dozen plowings would not pulverize it; but go and drain your land thoroughly, sir, and then it will turn from the mould board "as mellow as an ash heap," the light colored, hard, clay subsoil having been converted by the operation into a dark colored, loose and highly productive soil. Try, and see if it be not so. Be not deceived—it is not necessary that water should stand upon the surface to indicate the necessity of draining. All lands that have a clay subsoil, need it to make them fit for the wheat plant; for, how can it be expected to exhibit a healthy growth, standing as it does, for months together, in all such soils, with its feet in cold water? And when that is dried out, the case is no better, for the lower extremities of the plant are now encased in a solid clod, as impervious, well nigh, as a rock!

Do you say that you fear draining would make your land too dry in a dry time? Idle thought! This is the very evil you are now suffering for lack of draining. All such lands, undrained, are almost always either suffering from an excess of water or baked like a brick bat. So hard do they become in a drouth, that neither water from below can ascend, nor the atmosphere from above, with its watry vapor, penetrate into the soil. Would you then have your lands neither too wet nor too dry, drain them.

But here comes another, fresh from the harvest fields of his experience, and says, "I cannot believe in once plowing for wheat, for I have always found that when I have summer fallowed a part of a field, and could not finish it on account of the drouth, so that the other part could be plowed only once, the summer fallowed portion, which was plowed twice or more, produced much the largest yield."

Aye, indeed, have you found it so? So have we—and so far, our experience as wheat growers, tallies exactly. But what does this shallow business prove, in reference to the advantages or disadvantages of once plowing to double the depth, and turning under clover? Just nothing at all. Wait then, good sir—wait until you have given the system recommended a trial, before you open your mouth in condemnation.

There is something pertaining to the clover crop which exerts a powerful agency in loosening and pulverizing the soil, insomuch that once plowing leaves it in as good a state as twice plowing of a naked fallow. This effect is, doubtless, in part to be attributed to the ground being shaded with the crop, having the effect, as friend Starkweather, of Ypsilanti, remarked to us, of mulching, and in part to the mechanical effect of the roots upon the soil.

Clover once turned under, should not be again disturbed, lest the fermenting and decomposing process should be arrested, to say nothing of the dissipating effect upon the elements already in the soil. But the surface should be stirred by the cultivator, which is far better.

In regard to the best time for the plowing, if the object be to add the greatest possible fertility to the soil, and get the greatest possible wheat crop, independently of other considerations, then the best time would doubtless be the fore part of July, or about the time the first crop is in bloom. In that case, the ground should be gone over with the cultivator two or three times before seeding. But if your object is to get the greatest possible profit from your ground for the time being, at the same time that it is moderately improving, you can pasture your clover moderately until August, or even remove the first crop for hay, and turn under the second. Incredible as it may seem, that land should be thus kept improving, facts show that the contribution made to it by the roots, makes up for the loss. In

this case, the plowing should be done in August, at least three or four weeks before seeding, so as to give the clover time to commence fermenting and decomposing, that the germinating wheat plant may be quickened by the genial warmth which is evolved in the process, and reap the benefit of the gasses which escape. Some say the crop will be two weeks earlier for it, as well as more vigorous. In this case, the cultivator should be passed over it once or twice, preparatory to seeding—better twice than once. Thus pulverizing the surface will open it to the freer admission of air, with its watery vapor and its fertilizing elements, and also of heat.

We are still unable, from any new light we have received, to give a decided preference to any one variety of wheat, over all others. Of the old standard varieties, the small white flint seems to be in most general favor, as being hardier and safer than most other kinds. But those who still entertain the belief (which was formerly general,) that this variety is not liable to be injured by the insect, will find themselves most wofully mistaken, in the event of a trial. We have uniformly found, and the testimony of others agrees with our own, that when this subtle enemy makes a general sweep of the wheat crop, it pays no special respect to this variety. And it will not do to sow it on low ground, or on any ground in which there is an excess of vegetable mould, and of course, a deficiency of silica, or sand, for it cannot stand up at all on such a soil. It inclines to fall to the ground upon our best wheat lands, when left standing until it is fully ripe, but upon such a soil as that above described, it is of little use to try to raise it, there not being silica enough in it to form, in chemical combination with potash, the glaze necessary to stiffen the straw All who have tried this variety upon such land, know this. Still, upon good wheat lands, it is, perhaps, all things considered, as profitable a variety as any other. It will neither shell nor grow by standing.

Of the other well known varieties, those most in favor are the Souls', the Hutchinson, or Crate, and the blue stem. The great objection to the Hutchinson, or Crate variety, is its liability to waste by shelling, and to grow—otherwise it seems to be esteemed as superior to almost any other, it being a great yielder, and sufficiently hardy for this climate. But if the position we have taken in regard

to the advantage of harvesting wheat before it is fully ripe, be correct, (and that it is there can be no doubt,) this objection will be obviated. The blue stem seems to be in general good repute. The Souls' is the variety which Mr. Linus Cone has been so successful in raising, of late, but others have tried it with unfavorable results. There seems to be some doubt whether it is sufficiently hardy for this climate. Many, however, esteem it one of the best varieties. Of the Italian, or Dougherty wheat, a new variety, which has been so highly spoken of by many of the farmers of Berrien county, we know nothing beyond what they have said. The Mediterranean is a hardy variety, and is more secure against the insect than any other, and, on the whole, the surest of all the varieties: but it is in bad odor with the millers, and they have well nigh excluded it from the market, some say wrongfully, because the grinding of it is unprofitable. How far this is true, or whether it is true at all, we do not know. We know of some millers who say that it makes flour of as good quality, and as much of it, as any wheat.

A great deal has been said about the importance of changing seed with those who have a different soil, as a means of preventing wheat from degenerating, and even improving it; but we think that it is paying too dear for the whistle, the same end being accomplished at a much cheaper rate, by each one's selecting the choicest seed of his own. No man will go to a distance for seed wheat, without getting the very best that can be found in all the region. And if farmers were equally particular in sowing only the best of their own seed, the result would be equally auspicious. This is proved by the fact, that new and improved varieties of wheat have been originated by putting the seed through a process, which separates the plumpest and largest kernels, and sowing them without any change of soil.

We might extend these supplementary remarks much farther, and indeed we hardly know when we should arrive at a point where we could stop because there was nothing more to be said.

Essay on the cultivation of Indian Corn.

BY J. F. CHUBB, GRAND RAPIDS, KENT COUNTY.

There is no crop, perhaps, more beneficial to the farmer of Michigan, than the Indian corn; and it may be considered on many accounts, viz: its growing importance as an article of exportation to foreign countries, its nutritious qualities as an article of food both for man and beast; the large amount that can be produced on a given quantity of land; the certainty upon which we can calculate upon a crop, when properly cultivated, and the profits attending its production, to the farmer, to be entitled to the first in rank as a staple product of the country. A certain eminent agriculturist called it "the meal, meadow, and manure of the farm."

Although there is a greater certainty attending its production than that of almost any other kind of grain crop, and although it will adapt itself to almost any sort of soil, both as to kind and quality, yet there are two important requisites to its *profitable* cultivation. The first is a soil that is adapted to its growth; the second that the crop be well fed and cultivated. The soil then should be rather light and dry, made rich with manure if not naturally so, for although it *will grow* on land rather poor, it nevertheless is an enormous feeder. Ordinarily it costs as little, if not less, to cultivate a good crop with suitable land properly cultivated. as it does a poor crop under other circumstances. Thus the man who gets 32 bushels per acre, reckoning it at 3 shillings per bushel, and the cost of cultivation and use of land at $12 per acre, (which it need not exceed,) barely gets a compensation for his labor and pay for the use of his land. Whatever, then, the product falls short of this, is an absolute loss, and whatever it may exceed is a nett gain. Suppose then, one man gets only 25 bushels per acre, (which is too often the case,) he loses upon this estimate $11 88, upon a field of five acres; while he who raises 80 bushels per acre, (as any one may and ought to do,) realizes a nett profit of $90, or a clear profit of $18 per acre.

But we will proceed to a *rationale* of its production. *The soil,*

then, we have already hinted, should be light and dry, which embraces those denominated as sandy, gravelly, and loamy. Corn will not succeed *well* on wet or stiff soils. The roots extend to a great depth and the soil must be loose to admit of their free extension.

The manure used may be of almost any kind, such as barn yard and stable dung, plaster Paris, (sulphate of lime) and ashes. The first two should be applied plentifully, and thoroughly mixed with the soil. The latter are usually applied as a top dressing to the crop when first up. Long unfermented manure is to be preferred. It decomposes as the wants of the plant require, while its mechanical operation in rendering the soil light and porous is beneficial to the crop. But this rule may perhaps have its exceptions on very light sandy soil, naturally inclining to be too light and dry. A farther argument in favor of unfermented manure is that while it continues to afford fresh nutriment to the roots of the corn till it has matured, it is in its place to benefit the succeeding crop, and is nearly as beneficial to it as if permitted to remain in the open yard till it is thoroughly rotted, losing its strength by the repeated washing of the rain, and the absorption of the rays of the sun. I have applied with the best of success as a top dressing, a compound consisting of one part plaster of Paris, one of slacked lime and two of ashes, at the rate of about a half a gill to the hill, immediately after the corn appears above the ground, sufficiently to follow the rows. I do not consider the time as important to the growth of the corn as either of the other ingredients.

The best preparation for corn is green sward, or a clover or other grass, well covered with long manure, as before stated, neatly plowed to the depth of at least 10 inches, and completely turned over. The best plow for this use that I have used or ever seen is "Smith's subsoil plow," or double plow. The forward plow cutting and completely turning over the turf, while the hind plow throws up the under soil to the depth of 4 or 5 inches, and completely covers the turf, leaving the earth on the surface light and lose. After plowing, the roller should be passed over to even the surface, and followed with a thorough harrowing lengthwise of the furrows. The time for performing these operations depends upon the kind of soil. If clay, it may be done with advantage in the fall, but in general I prefer the

spring plowing, and as near the time of planting as may be. The horrowing, at least, should immediately precede the planting. When corn is preceded by a tilled crop, it should be furrowed out about three inches deep with a light plow, and for the smaller varieties of corn about 3½ feet apart each way, and should be perfectly straight. For on this depends much of the facility of the after cultivation of the crop with the cultivator. The old proverb that "the most hills grow in a crooked row," should be entirely discarded. On sod ground the rows should be superficially marked out with a marker fitted for the purpose, and the corn planted nearly upon the surface.

The time of planting will vary in different districts and in different seasons in the same district. The ground should be allowed to get sufficiently warm and dry to insure speedy germination. Natural vegetation affords the best guide. An old rule is, "when the oaks look gray then plant away." Another is when the apple is bursting its blossom buds, which is from the 15th to the 25th of May. Corn will usually do well planted any time in the month of May, the early varieties requiring only from 90 to 100 days to mature from the seed.

For the kind of seed much depends on the soil and latitude: on the heavier soils or in frosty locations, the smaller varieties of eight rowed corn will succeed best. Under other circumstances many prefer the larger and later varieties, as that of the dent corn, &c. In this district I have uniformly succeeded best with what is termed the "red blaze white corn," which is an early variety, and although small in growth of stalks, with proper soil and tillage it may easily be made to yield from 75 to 100 bushels to the acre.

Preparation of seed. After having tried various modes of preparation recommended, I have come to the conclusion that the best way is to plant the corn dry, in its natural state, where it is not necessary to do otherwise as a preventative of the depredations of animals or insects, of which I shall speak hereafter. The various steps recommended, if not cautiously used, frequently endanger the vegetating powers of the seed.

Monner of planting is ordinarily in hills, and where it is extensively cultivated it is the only practical mode. Small and highly cultivated parcels of land may perhaps be made to yield more by planting

in drills; but the cheapest and consequently the best mode of growing corn, is to plant in hills and rowed both ways, that the labor of cultivation may principally be done with the horse and cultivator. From four to six kernels should be put in a hill, allowing some for failure, which may be thinned out to four at the time of hoeing.

The after culture consists in keeping the earth lose and clean from weeds, and this should always be done whether it requires once or three times dressing. Generally, if the plowing has been well done, all that will be necessary will be as soon as the corn is up say two inches, to pass through the rows each way with the cultivator, followed by the hoe, to adjust the plants or stir the earth near the hills, where the cultivator did not reach. This will be all the hoeing required. The cultivator should be passed through sufficiently often to keep the earth light and clean. The old method of earthing or hilling up, has, with propriety, been discontinued by all good farmers. The surface of the earth should be kept even and smooth as possible.

One of the best crops that I ever raised was a field of ten acres the year past on a clover sod. The land was formerly burr oak plain, had been under cultivation 12 years without manure, about half the time in grass, having had but one previous crop of corn on it. The crop was cultivated "at the shares," the plowing (poorly done) about four inches deep, indifferently hoed and cultivated twice over. The yield was 25 bushels to the acre. The labor in the cultivation of this crop exceeded that expended on my last year's crop, which yielded 80 bushels to the acre, a report of which, as made at the annual meeting of our county society, is hereto appended.

Harvesting the crop. The best plan, I am satisfied, is that of cutting it up close to the ground as soon as the ear becomes fairly glazed and setting it up in stooks, to stand till sufficiently dry to husk. The mode of doing this is as follows: A hoe ground sharp, with a short handle, or a piece of an old scythe with a shank suitably turned and handle fitted, is made use of as the instrument, with which, at a single blow, a hill can be cut up: a man cutting and setting up about an acre a day. About five rows are taken for a row of stooks, setting the corn around every fifth hill of the middle row, making 25 hills in the stook, (without ever laying the corn down on the ground,) and

tying it lightly at the top with a band of straw. If the stooks are well set up so as to stand perpendicular, the corn will dry without moulding, let the weather be what it may, and at the same time the stalks preserved bright for feed for cattle; the value of which is no small item in the profits of the crops. The fodder of one acre of a fair crop, if well preserved, being worth at least as much as a ton of hay.

Saving seed. The fairest and soundest ears, and from such as have two ears to the stalk, should, at the time of husking, be selected for seed. A few husks left on the ear with which to braid them in traces, and then hang suspended in the corn house or other dry place, for seed. By following this mode of selecting seed from the most productive spears a series of years, the increase of the crop may be greatly enlarged, as I have proven by actual experiment.

In securing the fodder some precaution must be used. The buts being large, will not become dry as soon as the ear is in order to husk, and if packed in a mow would heat and mould. To avoid this, when husking I bind the stalks in convenient sized bundles, and draw them to the place of feeding and stack them in stacks around a pole, so small in diameter that all the butts are exposed to the air, carrying the stack as high as they can be conveniently pitched.

The enemies to be combated in raising a crop of corn, are birds, squirrels, wire worms, and brown grub or cut worm. The first three prey upon the kernel, and the mode of prevention is as follows: soak the seed in warm water till fully swelled, then for each bushel of corn take one quart of tar, sufficiently diluted with hot water to enable it to give a coating to the whole seed, when stirred and thoroughly mixed through it. For the convenience of planting, as much plaster may be stirred in after the tar as will adhere to it. This remedy I have repeatedly tried and have never had it fail as a guard against birds and squirrels, but also against all domestic fowls, as nothing will eat the corn when coated with tar.

The grub or cut worm works by eating off the spear close to the surface, immediately on its coming up. The ashes recommended as a top dressing manure immediately on being applied, are usually a check to its depredations.

I have detailed the preceding facts and method of producing this

valuable crop, not with a view to vaunt of superior skill, (or in mentioning my own crop,) of the fertility of my soil, but to show that good crops, by proper management, can be produced cheaply, and that a little observation and experience will convince the most skeptical that this branch of agriculture is not yet brought to a state of perfection; that there is yet room for *improvement.*

Essay on the Cultivation of Potatoes.

BY S. H. PRESTON, MARSHALL, CALHOUN COUNTY.

There are two distinct kinds of potatoes—the Irish and the sweet. The former is chiefly cultivated in the northern, and the latter in the southern states. The best known varieties of the Irish potatoes, are kidneys or foxites, early kidney, meshannock or mercer, pinkeyes, St. Helena, Sault St. Marie, Mackinaw, blue, orange, rohan, merinoes, long reds, white blue nose, silver lake, peach blow, English whites, Scotch greys, Sardinians, Bakewells and door-yards.

New varieties are produced from plants obtained from sowing the seed contained in the potatoe ball. When different varieties are planted near each other, the blossoms of each sometimes mix and cross, so that the seed of the ball, when sowed, may possibly produce an improved variety, partaking of the qualities of each. Good sized potatoes are not obtained from the seed of the ball till the second or third year. To obtain potatoes from the seed in the ball, the plant may be forced in a hot bed and transplanted.

The soil best adapted to the culture of potatoes, is a deep rich sandy loam. New broke up land, or a fresh clover or grass ley, made rich by incorporating with the soil, calcarous marl and unfermented manure, mixed with the muck that can be easily obtained from the marshes, will produce a good crop of potatoes.

The land designed for potatoes, unless a very tough old grass ley should be plowed early in the spring, turning under a good dressing of unfermented manure, harrowed till made mellow, and furrows then marked out with a plow to the depth of four inches, and 2½ to 3 feet apart; the latter distance is preferred by us. The planting is usually done across the furrows, if marked only one way, by dropping a half or two halves of a potatoe in each furrow, making the rows straight; the seed is either covered by the hoe or plow in hills three feet apart, each way. There is a saving of seed by cutting the potatoes, and it is believed to be equally as good, if not better than planting whole potatoes. Experiments frequently tried, exhibit

no material difference between the planting with whole or cut tubers. From the liability of potatoes to rot, which by some is supposed to be increased by the fermentation of long manure, none should be placed in the hill; but equal parts of salt, ashes, plaster, air slacked lime, pulverized charcoal and bone dust, especially equal parts of plaster. Charcoal and bone dust, if to be had, may, to great advantage, be added to the hill before covering, increasing the yield and in a measure lessening the danger from disease.

As soon as the potatoes are up so as to discern the rows, let the cultivator or a light plow, drawn by one horse, pass between the rows, as near the hills as possible, subduing the weeds, stirring the earth, making it light and mellow, and if a little earth should happen to be thrown on to the young plants, it will do no injury. Plaster or ashes are a very useful top dressing for the young plants, scattered about the hills. After a few days the cultivator or plough should again pass between the rows, followed by the hoe, hauling the earth about each plant so as to have a flat broad hill, rather concave than convex, so as to retain moisture. A certain quantity of moisture being absolutely necessary for a large yield of potatoes; but an excess is supposed to be one of the causes of the rot. After the first hoeing, the weeds should be kept subdued by the cultivator or plow, and if a second hoeing is deemed necessary, it should be done before the tops begin to blossom; after this the potatoes should not be touched, but permitted to ripen. As soon as the tops are dead, or nearly so, the potatoes may be thrown out of the hill by the double mouldboard plow, the potatoe hook, or as is more frequently the custom, harvested by pulling the tops with the hands and digging the tubers with a hoe. On account of the danger to be apprehended from the rot, many let their potatoes remain on the ground some 24 hours, to dry before being picked up. They are stored either in a cool cellar or in pits in the field.

Smoking potatoes is one of the numerous remedies recommended to prevent rot. They are placed in the smoke-house and thoroughly smoked. This process gradually dries them, and is no doubt beneficial, but it is attended with considerable trouble.

It is believed layers of pulverized charcoal sprinkled over the potatoes, when placed in the cellars or pits, will materially lessen the

danger to be apprehended from the rot. The absorbient properties of charcoal are very great. It removes fœtid smells from water, meats and manures, clarifies juices, and absorbs from the air and other media gasses. Salt is likewise recommended to be sprinkled over potatoes, but notwithstanding the alkali of salt, its moisture, it is believed, would be less beneficial than the use of charcoal.

It is hoped that the disease has disappeared entirely. It has greatly diminished, and in some regions entirely disappeared. The Commissioner of the Patent office in his report for 1848 has classified the various theories of philosophers and agricultural chemists, both in Europe and America, concerning the potatoe disease; and concludes by saying that the causes of the disease, as well as the remedies are yet a subject of great difference of opinion, and that while the remedies recommended as radical cures have failed, many of them have proved as paliatives, and suggests the propriety of cultivating potatoes in dry, loose, warm soils, avoiding immediate fresh animal manure, carefully loosening and heaping up the hill of the plants, the digging of the tubers in dry weather, drying of the moisture, and preserving them in dry, airy cellars, or in well protected pits.

Sweet potatoes. As a luxury for the table, a sufficient quantity of these potatoes can by every farmer be cultivated, with a little extra trouble. To preserve the slips through the winter, intended for seed in the spring, is attended with the most difficulty. A careful seclusion from air and light, frost and moisture, is very essential. This may be done by carefully placing the slips in layers of sand, thoroughly dried, and putting them away in some safe place in the cellar. Early in the spring, the slips are placed in a hot bed, two or three inches apart, and covered to the depth of two or three inches with a rich loam. After the sprouting of the slips, the plants should be carefully taken from the hot bed by placing the hand over the potatoe slip, so as to prevent it from leaving the hot bed, and taking hold of the sprout with the other hand as near the potatoe slip as possible, and pull it off.

By leaving the slip in the hot bed, more sprouts will be formed in eight or ten days, and the sprouts planted without the slip is more likely to be free of small stringy potatoes. The ground for trans-

planting should be a deep rich sandy loam, plowed deep into ridges and made mellow. At night, or just before a rain, following the same rule as is observed in transplanting cabbage plants, the sprouts, if in ridges, should be got out eight to twelve inches apart, the ridges being at least three feet apart. If in hills, one or two sprouts, three inches apart, making a large hill with a hollowing surface, so as to hold a half pint of water, four feet apart each way, as the vines spread and run, requiring considerable room for the sun and moisture.

The after culture is very similar to that required for the tomato plant and other potatoes, frequent hoeing by hauling the dirt around the plant without injuring the vines. As soon as the frost kills the vines, the tubers may be dug.

MARSHALL, Calhoun Co., Sept., 1850.

Essay on the Proper Improvement and Enjoyment of Country Life.

BY BELA HUBBARD, DETROIT.

"O fortunatos nimium, *sua si bona norint,*
Agricolas."—VIRGIL.

By far the larger portion of the agriculturists of our country are those who, having been "bred to the place," follow the occupation of their youth, neither taste nor education inclining them to any other. But there are also a few aspirants to this "field," among men bred to other pursuits, and of every school of education. The charms of the country have been the theme of poetry and eulogy, ever since men began to congregate in cities; and the bards' enthusiasm is exceeded only by that with which the wearied citizen, released from the toils of his shop or office, issues forth to court nature in her more genial abode.

Grown rich by years of unremitted application, the city resident sighs for the more ample enjoyment of those pleasures which he has tasted with occasional rapture, he closes up his business and *retires* upon his newly purchased country seat. Does he realize there the bliss which had filled his waking dreams? Or does he not as often become a prey to discontent and ennui, until he can find satisfaction only in a return to the ways of gain which have hitherto constituted his chief source of enjoyment?

So too, the unsuccessful tradesman, disgusted with his weary efforts and short acquisitions, views with envy the farmer's independence, resolves to share it, gathers up his scanty means, and engages in the coveted labors of husbandry. Surely he must realize the hope his fancy painted. Too frequently, indeed, these are only crowned with disappointment, and he, too, returns to the more accustomed and more congenial employments of the town.

And of farmers bred, how many toil on through life, with little thought beyond its mere daily routine, contributing nothing to the stock of human learning, and gathering little from the wisdom and experience of others!

There must be reasons for these unprofitable results, and where there are reasons there must also be a remedy. To that class of men who adopt agriculture from motives of pleasure, health or comfort, or from its supposed superior profit of any kind, I may be allowed to say, at the outset, be not too presuming of the pleasures or advantages of a country life. You have many questions to settle before you quit a mode of life with which you have been long familiar, for one to which "distance lends enchantment," that in the actual contact you may not realize. Are you prepared for the *discomforts* of country residence? To meet the many trials and disappointments to which your very partial knowledge will necessarily subject you? To bear frequent loss, from a variety of causes, which either you did not anticipate or possibly could not have prevented if foreseen? Have you the "bone and muscle" needed to perform the operations of agriculture with success? Lacking these, have you the *capital* requisite for embarking in a business which like every other requires means? In the absence of experience, have you an uncommon share of *prudence and economy*, and is *perseverence* a prominent trait in your character?

If you possess not these elements of success, your farmer's life will be one of discouragement and chagrin. The promise of spring, which in the bounty of its blossoms cheered your heart with anticipations of abundant fruits, will again and again be blighted by seasons more fickle than your dreams; by armies of insect depredators of which you know not, perhaps, even the name, and by a multitude of accidents against which you were unprepared.

> "———Heat and cold, and wind, and steam,
> Moisture and drought, mice, worms and swarming flies,
> Minute as dust and numberless, oft work
> Dire disappointment, that admits no cure."

Such are among the unlooked for realities that have occasional disgust with occupations which to the eyes of the unwary once seemed all enchantment.

> "How many self deluded nymphs and swains,
> Who dream they have a taste for fields and groves,
> Find them [but] hideous nurseries of the spleen,
> And crowd the roads, impatient for the town!"—COWPER.

But perhaps you have capital and are able to pay the cost of experience; you have strength and are willing to task it; you have economy and prudence, and, without undue expectations, are prepared to

submit to the trials and failures, for the sake of the solid enjoyments and real advantages, which if rightly sought, cannot fail to be the portion of the country resident.

To such, then, as from choice or necessity have adopted the pursuits of agriculture, and have the will and the power to make the best of their situation, I shall endeavor to point out some of those means which are conducive to the highest enjoyment and improvement of country life, and to the neglect of which may be attributed most of the ennui, disappointment and ill success that are too often experienced.

This neglect arises from a want of appreciation of the comprehensiveness of agriculture, and the limited views of education prevalent among those who follow it. The fields of *science* are but little explored, except by learned "professors;" the idea of agriculture or horticulture as belonging to the "fine arts" is scarcely understood; while their connection with the amenities of life,—the *literature* of farming,—is almost wholly disregarded.

Rightly comprehended, no subject that can engage the energies of man, offers so wide a field for new and interesting observation, or promises so rich returns of mental profit. But the mind that would secure these advantages must be disciplined to scientific investigation, it must have acquired the taste for and appreciation of such studies, and be capable of their proper and ready application.

Science is more intimately connected with the operations of the tiller of the soil than with any other pursuit, and it opens to him a range of thought, a depth of extent and variety of knowledge unparalleled in any other sphere of life. To him who is instructed in those

"Wondrous truths, and manifold as wondrous,"

every object in nature, even the seemingly insignificant, teems with matter for the most profound study, instruction and delight.

If we take the poorest plant that grows, watch it from the seed to maturity, examine its structure and the character and uses of its various parts, we shall find enough to excite the wonder and admiration of the most intelligent mind, to instance the wisdom, bounty and goodness of the Creator of all things, and to furnish an inexhaustible source of reflection and profit. Thus in the beautiful tale of "Pic-

ciola," we are taught what an influence may be exerted by a paltry weed, springing up through the crevice of a dungeon floor, to confound the pride of intellect and purify and elevate the heart.

Important as the study of Botany is to the agriculturist, how few have any knowledge of its principles, or undertake to apply them to the improvement of his art. Yet the habits and organization of the plants he cultivates have as direct relation to the operations of agriculture as those of domestic animals to the food they consume. The kind, quantity, and mode of application of the manure applied to a crop, is as deserving of consideration as any other part of the process of cultivation. But how vague are the ideas of farmers on this point, and how indiscriminate their practice? Many other things connected with vegetable economy, will equally repay the attention of the husbandman, that few bestow any thought upon. For instance, the "improvement of the breed" of plants, if I may use an expression, the import of which every stock farmer knows. How few farmers are aware that a similar system of cross-breeding as obtains among animals, may be pursued with equally important results in the production of new and improved varieties of grains and fruits.

The most obscure department of animal life presents equal interest to the practical investigator. In the life and habits of the meanest insect, he will find a like wisdom displayed and the economy of the universe sustained. No subject, of such apparent insignificance, affords so vast matter of instruction and entertainment, and, at the same time, is so intimately connected with his interests and happiness. Entomology has not received the attention it demands, most especially from the cultivator of the soil. How often are the hopes of the farmer blighted by the insidious labors of some minute insect, whose history is but little understood, and which is perhaps, not even recognized when seen. A disaster, which very possibly might have been averted or mitigated, had he possessed a merit of investigation, or a better acquaintance with natural history.

The progress of chemistry, geology and meteorology, has not only given new character and dignity to agriculture, but rendered a knowledge of those sciences essential to the cultivator who would not fall behind the skill and success of his neighbors. Greater changes still

are in reserve from their more extended practical application. Yet how few take pains to learn even those simple principles which lie at the foundation of the whole theory and practice of agriculture.

Apart from their merely outward application, these subjects afford as ample application for the mind as for the hands of the cultivator of the soil. None serve a better purpose in enlarging and stimulating its capacities and powers, in relieving from ennui or in bringing back to a healthful tone, the mind that has been warped and embittered in the rough thoroughfares of the world. Their interest never relaxes, but increases with every addition to knowledge. They give zest to every labor, and clothe with new and more delightful colors, every object of nature.

Another cause for the want of a proper appreciation and improvement of country life, is the *absence of a refined taste.* If the value of life is to be measured by the amount of enjoyment it affords, joined to the means of bestowing it upon our fellows, how much will be found to depend upon a cultivated taste, awakened and perpetuated by objects calculated to stamp its impress upon our being. In this respect our countrymen exhibit a marked contrast to the better classes of Europe. The difference is the result of early circumstances in the life of the individual. These have given that restless spirit to the American, which must have its satisfaction in the whirl of excitement, but allows no time for the cultivation of a love for scenes and places of quiet, but more durable enjoyment.

To one who has luxuriated amid the rural scenery of the best portions of the old world, who has traversed its green lanes, felt the kindliness of its shady coverts, and drank into his very soul the air of content and peaceful enjoyment which breathes from the vines and flowers, and leaves, and forms, as it were, an atmosphere around the home of the poorest English peasant, how strange the contrast to the bare log hut, or even to the more pretending frame edifice, so often seen among us, gleaming in the rays of an American sun, unsheltered by a tree, though surrounded by the scarcely dead remains of hundreds which might have been left for its protection and adornment! In the course of years, perhaps, the place of some of these may be occupied by a few paltry, dispirited saplings, planted in rows like a hop yard, but how many, many years must roll away before even the best of such

can boast a tithe of that lordly magnificence which the ruthless axe destroyed in a day! View the same farm after these long years have passed, and when a degree of wealth, won by hard toil and increased value of his lands, has brought its owner comparative ease, and how seldom does it approach the standard of a desirable country residence? No labor has been bestowed to please a refined taste, to cultivate a love for the beautiful, to secure the grace as well as the bounty of nature. Some parts of our country, it is true, present exceptions to this rule, but too rarely is any appreciation of the elegancies of rural life, interwoven into the plans and habits of the American farmer.

What splendid opportuuities are presented by our highly favored peninsula, for turning to advantage the natural beauties of landscape! How large a portion of this State is gemmed with lakes, reposing in the midst of a scene of grove and glade that no art could improve, and which resemble the best features of those celebrated parks of old England, that have cost ages and wealth uncalculated to produce! On the banks of how many of these might be erected a tasteful mansion, embowered among oaks of a century's growth, with undulating lawns, whose velvet is formed by nature's own graceful hand, and all this rural elegance and beauty to be had at the cost of enough of old fashioned taste to leave nature as we find her?

Let at least an acre around the homestead of every farmer, that seeks a "new home" in our western land, be undisturbed by the axe, except to remove what is useless. At least, let not the spot designated for the house be the first to be cleared of its noble growth of the old denizens of the land, whose place cannot be supplied within the lifetime of their destroyer. The men who commit such outrages are misled by a false education. They have not learned how much of comfort, of health and of true enjoyment may be had from even a single fine tree, sheltering a door yard. They are ignorant that these monarchs of nature upon which they so unheadingly make war, are their best protectors against the fever-burning sun and agueish dews. They are purifiers of the atmosphere from the miasma that the "clearings" have engendered. They act as safeguards from the lightning. They cool the fervid heats of summer, by creating beneath their branches a refreshing breeze even in a sultry calm, and at all times

they delight the eye and cheer the heart of the true lover of nature. Why should the settler build his cabin away from the kindliness and protection of those natural friends to man? When will our country homesteads be worthy of song such as those of another land have called forth from the most gifted of English female poets.

> "The merry homes of England, how beautiful they stand,
> Amid their tall ancestral trees, o'er all the pleasant land."—*Mrs. Hemans.*

Children should be taught to venerate trees and every thing rural. As much as possible, they should be brought up amid scenes of picturesque rural beauty, multiplied and enriched, but not distorted by art. They will derive from such scenes, not merely a love of nature, but a taste for what is elegant and lovely, that will have a salutary effect upon their lives. Make me acquainted with the character of a man, and I can tell you what his home is. Let me see the home that he has chosen or made, and I will tell you his character. We meet with few of the blandishments and refined courtesies of life among the members of a family which has been suffered to grow up in a dwelling unsheltered by trees, and unadorned by shrubbery and flowers. They will be a prey to peevishness and discontent, and will ere long desert a mansion which never claimed the homage of a home-loving heart; and perhaps roam away, to establish its counterpart, by taming down to their own naked model, some magnificent site in the west. Is not much of the restless spirit of our countrymen, much of our incomplete husbandry, much of the discontent of our farming population, owing to the want of this kind of cultivation of the faculties and heart.

But he who would add these charms to his country residence must not go to work blindly, or follow the mere impulse of fancy. In the selecting, laying out and adornment of his grounds, science and cultured observation are no less requisite than in his other operations. Let him consult experienced sources, studying carefully those *principles* upon which the most perfect rural beauty and embellishment depend, and which can be comprehended and successfully applied only by the man of nice observation and ingenious and cultivated taste.

> "——— Strength may wield the ponderous spade,
> May turn the clod and wheel the compost home;
> But elegance, chief grace, the garden shows,
> And most attractive is the fair result
> Of thought, the creature of a polished mind."

For improvements of this character, our western lands, fresh from the Creator's hands and unshorn of their native beauties, possess an advantage over those older portions of the Union. Still more conspicuous are the advantages possessed by our countrymen over the rural inhabitants of the old world, a large proportion of whom are merely tenants of the land they occupy. What an inducement is offered in the cheapness of western farms and the ease with which proprietorship is acquired, to constitute the rural residences of our country very models of all that is tasteful and beautiful, and conducive to the highest enjoyment as well as improvement which it is possible to attain.

That agriculture has been the solace and delight of many who found in it occupation for the highest intellectual attainments, we have examples in some of the most renowned names of ancient or modern times.

> "Such themes as these the rural Maro sung
> To wide imperial Rome, in the full height
> Of elegance and taste, by Greece refined."

The illustrious Bacon pronounced gardening to be "the purest of human pleasures and the greatest refreshment to the spirit of man." And while many of the most distinguished talents have not disdained the occupations of the husbandman, from those humble walks have arisen individuals who have been ornaments to literature. They seem to have discovered diamonds in the earth which they cultivated, beaming with a radiance that eclipsed many a brilliant light of genius. From handling the plow they have wielded the pen of learning or managed the sword of justice or of empire.

In the midst of his rustic occupation, Scotia's bard imbibed the spirit of the muse and learned to strike her tuneful lyre while his hand held the plow. In his own language—"The poetic genius of my country found me, (as the prophetic bard Elijah did Elisha,) *at the plow*, and threw her inspiring mantle over me." And whether he drew his inspiration from the green fields of Scotland, or whether, like the mantle of the prophet bard, it fell from Heaven, he has tuned his wild, artless notes in nature's sweet and unaffected strains, to sing the rural pleasures of his country.

The English poets, too, have consecrated in their loftiest verse the objects of rural scenery, and can we wonder that scenes which charm-

ed the muse of Cowper or Thomson should be a source of universal inspiration.

But it is by no means poets alone that from the plow have arisen to fame. Our own land boasts of an orator of nature—the eloquent Henry—who from a farmer's lad became the champion of America and the eloquent defender of the rights of man. And many of those truly great men whose names are the ornaments of history, have sought release from public cares in the quiet occupations of husbandry, or, like Cincinnatus of old, have been called from the vocation of their choice, to exchange their field for an empire.

> "In ancient times the sacred plow employed
> The kings and lawful fathers of mankind,
> And some with whom compar'd your insect tribes,
> Are but the beings of a summer's day,
> Have held the scale of empire, ruled the storm
> Of migthy war, then with unwearied hand,
> Disdaining little delicacies, seized the plough,
> And greatly independent llved."—THOMSON.

Our own history records a lofty example,—that of the *Father of his country*,—upon every event of whose life no American but loves to dwell; who, crowned with civil and military glory,—the idol of his countrymen,—the admiration of the world,—retired to his country seat and his peaceful rural employments;—the Patriot, the Commander, the Statesman, and the Farmer.

Is there not something in these pursuits congenial to great minds? Or are they the resort of modest merit, which discontented with the storms and bustle of life, seeks under their influence for its sunshine and its calm? We need not multiply such examples for an illustration of the elevating influence of the literature of rural life,—a pursuit friendly to the best interests of man, to peace and virtue, and the first and most ennobling sensibilities of the heart.

Were a country life oftener viewed in the light in which I have endeavored to consider it, we should hear less complaint of its irksome toils and poor profits. More of high enjoyment would attend its daily labors, awakening new views and feelings, and lighting up the objects of rural life with a fresh, ever varying, and ever delightful aspect. Who can estimate the extent to which the bounds of science might be extended, and the benefits that would result to enrich the mind, and the soil of the practical cultivator, if more attention was bestowed upon "the works and ways of nature," for which

the country resident enjoys such superior and abundant opportunities. Even the love of the beuatiful in nature, pure as it is simple, has a moral teaching beyond all the dogmas of philosophy. The severe duties of the farm might be oftener. and with profit, relieved, by devoting some hours to the library and laboratory, the fruit orchard, the flower garden, the conservatory. These, while they add to the permanent value of his farm, give also zest to its more laborious occupations, by mingling the useful and the sweet into an harmonious whole.

If the wise, the good and the learned, have always found the country the best nursery place of thought, and of all the virtues and enjoyments that render life most useful and happy, let farmers learn to estimate properly their superior advantages, and turn them to the best account, by carrying every branch of their most important of all arts to the highest point of perfection. No man is so humble or so ignorant that he cannot find enough in his rural occupation to elevate both himself and his art; while none is so learned, rich or influential as not to derive increased dignity from a position which his talents may adorn. How high the station—how rich the field of observation and improvement—how wide the sphere of usefulness, of the independent, refined, intelligent farmer! His example is more diffusive than that of any other member of our broad republic. He illustrates more than any other the perfection of manhood. Exposure has browned his cheek, but health lights his eye and makes his form erect and vigorous. With these physical qualities he combines a manly, conscious, intellectual freedom, a mind expanded by science, a nature liberal, and polished by the blandishments and courtesies of life. Such should be the characteristics of a class which we trust to see the largest and most respected in our republican land—that of the *country gentleman.*

Address of Hon. J. R. Williams, before the Michigan State Agricultural Society, at Ann Arbor, September 26, 1850.

Mr. President and Gentlemen of the Michigan State Agricultural Society, and Fellow Citizens:

To the true friend of his race, among the wonderful changes of a progressive age, none is more grateful than the restoration of the pursuit of Agriculture, to its place of due dignity and honor. Restoration, did I say?—I should have said elevation, for history affords no record of the time when the cultivation of the earth as an employment, maintained its due importance. The historian, the poet, and the preacher have alike catered to diseased tastes. History has trumpeted only such deeds, as mankind loved to applaud. Poets seem inspired most by the slaughter of the battle field, and the renown of destroyers. Even preachers have been found, age after age, who have prostituted their high functions to glorifying the murderers and plunderers of mankind. Reward, honor, glory, have followed those who have spread broad-cast, disease, crime, death and desolation, over the earth, while the patient toil, which comforts, clothes, feeds and preserves the race, has passed unnoticed and unapplauded. JENNER has saved more lives than NAPOLEON destroyed, yet the name of the one seems almost faded from the recollection of men, while the name of the other gains accumulated renown by the lapse of time. Even yet the revolver is an object of more curiosity and applause than the drill. The one was invented to destroy, the other to nourish human life. I presume the gang pistol attracts more attention to-day at the Patent office than the gang plow. The Nation's Cabinet flock to the Princeton to witness the fatal explosion of the Paixhan gun. I doubt whether the same galaxy of intellect and fashion, had they been crossing Prairie Ronde, would have stepped from their carriages to inspect that wonderful illustration of skill and energy—the mammoth reaper, which by a single operation, reaps, gathers, threshes and cleans the wheat crop—and by whose co-operation, a few weeks since, the manufactured flour was hurled along yon

iron track to its ultimate market by the morning's sun—which the day before waived in grain over the wheat field. Though the world begins to appreciate the cultivators and promoters of the arts of peace, yet, those who cater only to the vulgar tastes, who spread their sails only to catch the popular gale, will long yet applaud the dealers in death and destruction.

The exhibitions of the Patent office at Washington—of the American Institute at New York, are illustrations of a Nation's progress in art and industry, that must cause an American's heart to beat with fierce throbs of pride and hope. I confess that the recent mighty assemblage at the annual New York State Fair, and the myriad evidences, animal, vegetable, and mechanical, there gathered, of industry, skill and improvement, convey to my mind a more noble, more instructive, more impressive proof of a nation's advancement, prosperity and grandeur than was ever furnished by a Grecian Game or a Roman Triumph. In such a presence, the enthusiast may grow more sanguine; the despairing gather courage, and sectional and party strife be hushed. Against such adamantine evidences of national permanence and power, the angry and terriffic waves of political strife, must dash powerless, break and recede, to be succeeded by other waves as vain, as frangible, as powerless.

It is a subject of pride and congratulation that our State Society has known no infancy, that it is mature and successful from the commencement. It is to be hoped that the hearty zeal and co-operation manifested by the the farmers of the State will prove in the result as permanent and profitable, as it is public spirited and honorable.

It belongs to the formalities of the occasion, that an address be delivered. This is my duty. I cheerfully perform it. But if the living lessons all around you, instinct with life and strength and beauty teach nothing—if a comparison of the works of intelligence, industry and care with those of ignorance, indolence and neglect, leave no durable impression on your minds, hopeless and thankless is the task of him who addresses you. The humblest specimen of animal or vegetable life would afford an ample subject for illustration during the short hour allotted me. A mere catalogue of the evidences of progress or of the causes of disaster would consume the day. To grapple successfully with some single error or abuse would require a

giant's powers. My mind is bewildered in selecting a subject for our contemplation. A wide field of subjects springs up unbidden before me. I leave it almost untouched, for a keener sickle, a stronger arm, and a clearer eye. I shall only attempt to eradicate a few tares.

I last year had the honor to deliver an address before a county society; I selected the subject of "Thrift and Unthrift," as applied to the life of a farmer. A subject not exhausted, I again resume. Here let me say that I do not mean to elevate the gains and accumulations of a man to an undue importance, to make property superior to the individual. I cannot esteem property above humanity. Although my object will be to illustrate the methods which promote, and the errors which retard acquisition, I cannot place the property and income of a man, on the same level as manhood, justice and truth. But in so far as thrift and competence and plenty, are aids to progress, aids to well being, aids to civilization, they deserve the devotion of our best faculties. It is in this view, that this Society is organized, this great throng is gathered, these multiplied illustrations of thrift exhibited. To promote feebly by speech, what nature's lessons and cruel experience should teach more pungently is my duty.

Though we witness at State and County Fairs all over the Union, rich, rare, varied and invaluable exhibitions of skill and improvement, pardon me if I say, that they are like the brick which the charlatan carried in his pocket as a specimen of the whole building. I should be recreant to truth, if I did not say, that in no general pursuit is there so much waste, thriftlessness and extravagance as in the business of the farm. It is of little account to produce, only to waste. To sow, to cultivate, to reap, perhaps amid anxiety, hardship and disease, and lose the crop in the wheat stack, or by exposure in the open field, is a thankless task. To garner up in your barns, a giant crop in safety, that it may pass at once into the relentless maw of the creditor is hardly less mortifying. If I tread on corns, I trust you will not blame me, but rather blame yourselves, that your toes are tender. I shall speak right on, homely truths, in homely Saxon; truths I think vital to your prosperity.

Our first error is general and glaring. It embraces the whole people. Look over the face of the globe, and how large a proportion of

the whole annual production of mankind is hoarded, after providing sustenance for the race. Not two per cent is saved and accumulated. Life, with ninety-nine of every hundred, is one fierce struggle, from the cradle to the grave, for mere existence. Whoever, then, mortgages his labor and his skill in advance, attempts to reverse the ordinations of Providence. It is a lamentable fact, that nearly our whole harvest is owed abroad and pledged in advance. We now as a people bid fair eternally to owe a crop in advance. So long as we do, we shall be mere tributaries. We must pay interest. We must be taxed extortionately for the credit given us. We must pay ten or twenty per cent more for every thing we buy, than it could be purchased for, cash in hand. We must, therefore, earn and save from five to ten-fold more than the average net profits of mankind, to enable us to pay the perpetual penalty of being in debt. Allow our whole exportable crops to be eight millions of dollars. Depend on it, that more than one million is lost, sunk, exhausted, when it ought to be saved as surplus capital at home. It is said that China now pays fifteen millions of dollars annually, as the balance of trade against her, caused by vast and fatal purchases of opium. This sum is lost —and worse than lost. It besots and stultifies the people. Whether some of our imports do not tend to impair, rather than promote prosperity, whether they do not destroy, rather than invigorate—it is not my purpose to discuss.

It is now my object to show, that we annually sacrifice in paying interest and profits, from extortions, and legitimate charges for anticipated loss, one eighth at least, of the whole earnings of the State—a drain and an exhaustion as certain, if not as destructive, as the drain upon devoted China. We are self-made slaves individually. We are slaves as a people. It is a proverb as old as Solomon, "the rich ruleth over the poor, the borrower is servant to the lender." This is true of the individual. It is true of a nation. We are a community of borrowers. We are truly servants to the lenders, to the merchants, to the capitalists, transporters, mechanics, and perhaps to the jockies and quacks, also of other States; of great and opulent cities. In a few great marts of trade the surplus capital of the country centres. You laugh in derision at the Jenny Lind foolery, in which tens of thousands are squandered. The actors might

with equal propriety laugh at you for being fools enough to help foot the bill. No people can be thoroughly independent and prosperous, who do not vindicate their own right, to the full enjoyment of the full value of their toil.

To reverse our calamitous course, what shall be done? Each individual must understand his true position. We must as a people practice self-denial. A man may crave all the luxuries he encounters, but depend upon it, there is no luxury like the luxury of independence—the luxury of being lord of all one's earnings. Let each man forswear the knawing, weak and pernicious policy of mortgaging in advance, the wheat designed for his children's bread. Let the husbandman follow the plainest and simplest law which experience teaches to man, and instinct prompts to inferior animals. Learn a lesson from the squirrel, the ant, the bee. Accumulate—earn—produce, before you consume. Let the harvest field, the wool clip, the orchard, of this year, clothe and feed you, till another harvest returns. Trifle not with the laws of nature, by mortgaging in advance this year, the earnings of the next. Gather material before you build. Quell every desire for ostentation and display. Attempt no silly rivalry with a neighbor. You shall then be independent, clear-headed, and unstained by tricks and subterfuges, and untrammelled by the thousand chains, which eternally clank on the limbs of those who traffic for the world. It is a weak ambition to crave notoriety as a great producer, a trafficker, a merchant farmer, an exportin the market, at the cost of credit, peace, and final success. It is a noble ambition, to earn and convert, from a little portion of mother earth, the most and greatest variety of products, that contribute to the health and independence of himself and family, though his path is quiet and even obscure. A merchant gives *his* note for an article, which he designs to sell and convert to-morrow. A manufacturer gives *his* note for raw material, which he has facilities for fashioning and changing and enhancing in value, that he may realize from it to-morrow. Even the wildest speculator supposes that he grasps more than a convertible equivalent whenever he signs a note. But the tiller of the earth, who gives *his* note for a determined sum at a fixed time, and trusts to the mysterious workings of nature's laws, commits a suicidal folly. These laws are certain in their average

and general results, precarious from season to season. Whoever calculates on certain bushels and certain pounds, may obtain but half a crop. When he begins to pay it on his note, he will find that it still takes twenty hundred to make a ton. A stroke of lightning, a tornado, fire, flood, drought, the knawing of a minute insect, or his own sickness, ignorance or neglect, may deprive him of his only resource. But as certain as day succeeds night, and as the ninetieth or three hundred and sixty-fifth morning dawns, his note matures. His creditor, or the inexorable necessities of his creditor, are deaf to the excuses and delays, which find an apology only in the blind infatuation which made him the antagonist of storm and fate, and inscrutable Providence. Yes, the trade of a merchant and a speculator is incompatible, with that of a discreet husbandman. Even if finally triumphant in a departure from his legitimate pursuit, if he maintains respectability, forfeits no self-respect, destroys no peace of mind, sacrifices no friends, still his life, from one end to the other, will probably be one continued scene of perilous strife, of desperate endeavor, of cruel embarrassment.

We talk a great deal about the measures and policy of Government. But no policy will enable people to survive negligence and thriftlessness. The individual man can place himself far above the questions of currency, tariff, or sub-treasury. Five days of well directed labor, affects him personally, more than the decision of a national question. Tell about currency, earn and accumulate before you expend, and you'll have currency enough. Possess first what will buy the currency and you will at once place yourself above the quackery that will inflate, or the quackery that would destroy a currency. Who ever heard a man complain for want of a currency, all of whose debts were paid, and who had an hundred bushels of grain in his granary. It is indeed a great inconvenience for the purchasers to go a thousand miles for currency to buy your wheat. It is a great inconvenience to have your pockets stuffed with doubtful bills. But if you want the poorest of all currencies, a currency so current that it eludes alike your wit or avarice; if you want a currency worthless, whether in form of paper or gold, just owe your crop before you harvest it, and my word for it, you will growl enough about a currency. If one thousand dollars in gold is paid you, and you owe

eleven hundred, even the charms of gold currency, are like other charms, fleeting and evanescent. As a State, we may have eight millions of surplus for sale and export, but if we owe eight millions one hundred thousand, the currency used in its purchase, remains afloat in the country only long enough to make a single exchange. Mark its track. It passes fpom the miller or wool buyer to you; from you to the trader, and quick as steam, quick as the express, almost as quick as the electic telegraph, it flies to your own banks for redemption, or into the remorseless grasp of the eastern creditor. Let the myriad producers of a crop own it, and hold it for use and consumption, and they will be independent, cheerful, self-possessed, above the want of a currency and above all wants; and the million lost by the opposite course, will remain and circulate and be expended for labor, in the improvement and embellishment of the State. If then paid for importations from abroad, it is paid voluntarily, and at a saving of ten or twenty per cent. to the family and the State. The individual man should be master of, altogether above, and independent of any measures of policy of any party. Neither the tariff, nor free trade; neither gold nor paper currency; can more than answer as oil to the machinery. They can never supersede the engine itself.

A short time since, I was present at the payment of a debt; "There," said the payer, "so much more is paid. In one year more, I hope to extricate myself, and see the end." "Sir," said he, "a man is but half himself, but half a man, burdened as I am." This brief speech embodies the philosophy of the case. If this is true of the individual, what a night mare it must be upon the State—when a large share of its citizeas are thns crippled and discouraged, when the aggregate of human power and energy is thus impaired. I might follow these considerations farther, but must forbear. The great error is fourfold in its character. First, the community is always in an unnatural position. It is one year behind hand. Next, it causes a sacrifice annually of one eighth of our earnings. Next, it seduces us all into the purchase of much that is injurious rather than useful. Lastly, it cripples and paralyzes the faculties of the individual citizen and the whole State.

The next topic to which I would call your attention is the pervading want of system, economy and comprehensiveness, in the life

and plans and practice of the farmer. This neglect is so general, that it may be regarded as a public misfortune. Not long since a woman addressing me by my christian name, remarked: "It appears to me, that farmers understand their business less, or abuse their calling more, than any other people." This fact, obvious to a woman, demands searching investigation. If not true, why is it that the factors, and transporters and mechanics and manufacturers, who use the crop and the raw material, seize and control and possess so much more than their proportional share of capital and wealth, than the primary producers. Must we confess that they are more thrifty, more industrious, more sleepless, more enlightened, in the pursuit of their several callings?

There are few wheat growers in the State, who do not sacrifice by poor seed, or by poor culture, or from exposure to the mice and birds, five per cent. Yet a loss of five per cent. on his transactions would instantly ruin every miller who buys the wheat in the State. The farmer often unwittingly incurs still more serious losses of interest, insurance and waste. So of wool. The wool grower, often from disease, the propagation of poor breeds, the loss of the increase, and suspension of their carcssses on the fences and trees, and a division of the clip with the briars and bushes, sacrifices more than ten per cent. of his toil. Let the wool staplers and manufacturers lose half that per-centage, and they are ruined. Take the hog raisers and drovers of the Ohio river States, and they annually lose in waste of food to cormorant breeds, by over driving and general bad management, more than ten per cent. The same loss to packers and dealers, would ruin them all. How sudden the change of economy. As soon as the drove passes into the slaughter yards, all is saved for an useful or scientific purpose. The heart, the most intricately hidden fat, the bristles, are saved. The hair, the hoofs, the very blood, are sold to the manufacturers of prussiate of potash and prussian blue. Thus we perceive how the very first converters of the raw productions of the farmer, observe an economy the farmer despises or never dreamed of.

Let us compare in a limited sphere the practice of the farmer and the mechanic. The skillful mechanic saves every scrap of material, works every hour, carefully preserves every tool. His neighbor far-

mer, perhaps, sows poor seed, uses poor tools, exposes his crops and habitually wastes much time, and wonders all the while why his neighbor thrives better than himself. A mechanic hears of no new application of labor-saving machinery to his trade, not of the simplest tool, that he does not acquire it. It is lamentably true that many farmers turn with aversion and contempt from every new implement or new discovery, as a new fangled notion, as the scheme of a visionary. A mechanic rarely shrinks from an experiment in dread of ridicule. A farmer is often too nervously sensitive to the slightest hint of failure in his experiments. The knowledge possessed by his grand-father is knowledge enough for him, and he clings with undying tenacity to the customs and traditions of his fathers. Go into a great warehouse where millions are bought and sold, system descends so far into detail, that the nails from old boxes, the backs of old letters, waste paper and rags, and old scraps of iron and wood and paper, all are saved on a systematic plan. Go into a large manufactory, no scrap of material goes unused, no workman is paid for time unemployed, no dead-heads, no stock fed which does not work, no machinery goes unoiled—all progresses with regularity and precision. I might multiply illustrations till night-fall, to show that from the humblest mechanic shop to the giant manufactory, there is an exhibition of economy and thrift which puts to shame the mass of the farming population. I might deduce also from these facts, why the capital of the world centres in few hands, few depots, few cities, and why it does not remain in possession of those who earn and produce it.

See how the mechanic and trader have a place for every thing, and every thing in its place. See all the little contrivances about their shops and premises for saving time, saving property, and saving health. Are all these visible about the dwelling of the farmer? Yes, about the premises of one in ten, or one in twenty. The instances are not so frequent, as not to be exceptions, and to attract the attention of every passer-by. As travelers, we treasure them up in memory, as little oases we have stumbled on, to be remembered and held up for imitation. How it does ones heart good to see a farmer with every thing snug about him! fences all in repair, glass all in, latches and gates all perfect, every thing living and inanimate housed,

the very grindstone protected by a roof. Such a man is entitled to eternal honor. Humble he may be, obscure he may be, but still he performs his duties as a man, a citizen, respectable and respected, more honored and more entitled to honor, than many an ephemeral great man, whose name, without merits, is heralded and blazoned over the earth. He may wear horn buttons on his vest, but it covers a quiet conscience. He may wear a cotton collar on his shirt, but it brings him no disgrace if it is only clean.

It is true that some men thrive who do not observe system and economy. I have a farmer friend who is honorable and punctillious in his dealings, drives good bargains, makes good markets, and exercises a sound discretion in the management of business abroad. Yet he feeds every thing with extravagance—always has stock about him which eats, but neither works nor grows while he sleeps; always has more teams, wagons and harnesses than he needs; exposes his cattle to the wind and storm, thus causing a larger consumption of food and a greater liability to disease. By great energy and ceaseless labor, he still thrives, though he wastes enough yearly to support another family handsomely. In one sense, ne is a curse to his neighborhood, for all his imitators are ruined—not having capacity enough to survive such folly. I have in my eye a neighbor, who is always grumbling of his hard fate and poor crops. He skims over the surface of the ground, plowing about three inches deep. Below, he has left a perfect hard pan, through which roots can hardly perforate. He has left growing bushes and stumps, and dead trees and logs, all over his fields, so that his crops neither enjoy the full influence of the light and air of heaven above ground, nor the genial effects of moisture below ground, and are crowded out of their fair share of room on the surface of the ground. Bad seed, bad fences and ragged grain-bags, still further diminish the crops of this altogether unfortunate and ever to be unlucky man. As an upshot of the whole matter, he is always in debt, and always will be. He borrows of every body and always will. Ho ag ees with nobody, and nobody with him, and so it always will be. He is one of the men whose grandfather knew as much as modern folks, and rather more.

"Many a little makes a mickle." I fear many farmers prefer hard work and exhaustion, to snug work and comfort. Twenty-five cents

per acre expended in securing the best of seed, may save five dollars per acre on the crop. In five minutes a fence might be mended, and the destruction averted of whole rods of a crop. A grub or a stump might have been eradicated for a penny, and sixpence worth of grain growing in its place. A few stitches of a thrifty housewife in a grain bag, will save pecks of grain. In doors and out doors, "a stitch in time saves nine." An utensil or wagon, well painted, and well housed, will last double the time it would if exposed. A crack of a finger's breadth under the door, or a broken pane of glass which may be remedied in half an hour's time, or at a shilling's expense, will cause the consumption of whole cords of wood. When an animal has ceased to work and ceased to grow, it will be a saving of five or ten dollars to dispose of him this year rather than the next. Five minutes time will suffice to graft or bud a tree, so that its annual crop shall be quadrupled in value to the third and fourth generation of men.

Let a man have all the tools and implements of his trade about him, let him have all the luscious fruits of the orchard; let him raise his own poultry, butter, cheese, honey; let him have all the little comforts and conveniences which shed a radince on daily life, and depend upon it, such a man has plenty of leisure. Another man has no time except to help himself copiously to the provisions of others The more pleasant and alluring a house is, the less likely it is to be forsaken for public places, the tavern and the grocery. If a man envies his neighbor, and wonders at his own want of luck and thrift, let him look into his daily life. Let him search if the sixpence, daily spent in grog, the three-pence, daily wasted in tobacco, the dollar and day wasted at the shooting match or circus, the tens of dollars squandered in litigation, the hundrends in poor seed, bad fences and bad habits, would not provide one hundred fold more than his envied neighbor enjoys. I recollect some where reading an anecdote of two physicians; one was what the world calls a temperate drinker; a St. Paul man, who took "a little wine for the stomach's sake, and thine often infirmities." (By the way, St. Paul should have done a great deal of good in the world to attone for the mischief caused by that prescription.) He had a rather red nose, naturally enough. Meeting his brother physician, "How is it," said he, "you have a fine

horse and harness, a fine painted carriage, and yet I have more business than you, and must ride after this old horse and this old carriage. I can't keep my carriage painted." "Friend," said the other, "take the paint from your nose, and put it on your carriage and you'll thrive well enough." Now it becomes us all, before we envy our neighbors, before we quarrel with fate and fortune, and curse our stars, and our luck, before we look into an old Almanac, to discover if we were borne on Friday, to see if we have not some idle habits, some thriftless manner of cultivation, some ugly tendency to mortgage a crop before we earn it, some paint on the nose, which we might transfer to the carriage.

There are many little felicities to be enjoyed by the thrifty man. He will know who his friends are, once a year, when his fruit is ripe. He will have the satisfaction of seeing his example working miracles: "a little leaven, leaveneth the whole lump." He will be independent, and in this world of petty cares, and petty anxieties, as well as lofty hopes, and unsatisfied ambition, it is a great comfort to be independent in the lesser matters of life. If he keeps every thing in its place, and in good repair, he can enjoy a plenty of borrowers. He will then learn exactly who will shower curses on his head for kindnesses bestowed—and also whose hearts, gushing with gratitude now, will bless his memory, and be kind to his posterity, when

"He has plowed his last furrow,
And reaped his last grain."

If what I have said is true, one gratifying inference must be drawn from the facts. The energies of a people must be exhaustless, who can survive such abuses and sacrifices, as I have described. How vigorous and muscular the swimmer, cast upon the stream, who, borne down by heavy weights upon his person, yet carries aloft a precious burden on his giant arm, and reaches the shore in safety and triumph. How great achievements are in store for a people, now relatively prosperous, in spite of every error and every obstacle, when guided by a keen, sagacious, and wise regard to all their interests and duties. Our present condition is sterility and barrenness, compared with the ripe and luxuriant prosperity, which we ought as a people to attain.

The best faculties of men must be devoted to the farmer's pursuits; the best intellect must be engaged in it; and the farmer's life must be a field wide and attractive enough for the engrossment and

development of every human faculty, or error, ignorance and thriftlessness will not be exploded, and the calling will not secure the elevated position it deserves. Happily a rapid change is perceptible. The relative positions of professional, mercantile and farming pursuits are changing day by day. The first are no longer sought with so much avidity; the last no longer shunned. A wise man should never encourage his children to assume the duties, vexations and hazards of precarious and unhealthy pursuits, no matter how dazzling the prospect, how brilliant the prize. There is a higher object than wealth to be gained—sound sleep and sound health; a higher object than personal distinction—a composed conscience. In times past there seems to have been a kind of infatuation among the farming community in regard to evasion of their honorable calling. Thirty years ago a farmer was prone to act with his children as though he himself followed a degraded calling. He seemed to deem professional or mercantile life the only road to high respectability or social and official distinction. The Websters and Van Burens, the Wrights and the Fillmores, were not retained to ennoble their own, but crowded off to illustrate and to adorn some other profession. It has somewhat mended of late. The public mind has become more sound. It bids fair to become perfectly sound. It certainly will, if men will speak the truth and hear the truth, and practice on its precepts. The world will never regard the farmer's calling as the most honorable till it is so cherished by himself.

In public estimation a pursuit is appreciated at the value placed upon it by those who follow it. Turn back, then, the tide of public sentiment among the agricultural population. The sturdy sense of many a sturdy farmer pierces the gauze delusions thrown around the fanciful and frivolous life of the townsman. In the expression of his judgment sound, he yet practically may have sought all his life to make his children the very butterflies he detests. If he would have his occupation take rank as the most respected and dignified among men, he must not himself act as though he regarded it as a dull and stupid exercise of human powers. I know not so small a farm, so limited a garden, that may not engross all a man's faculties and consume all his leisure. The time may be distant when each farmer may be a geologist, a naturalist, a chemist, but the time has already arrived when the application of science

to agriculture is producing a peaceful, certain and gigantic revolution, elevating the calling, multiplying its results, increasing its comforts and promoting a higher civilization of the race.

A farmer should not consider it presumption, but a duty to gladden his home with all true and genial and intrinsically valuable comforts that shed a glow and an attractiveness around the private home of the citizen. He can make it more inviting. There are few comforts and appliances about the home of a townsman, which a countryman cannot enjoy. There are a thousand pleasures around a country residence which all the capital of a city cannot buy. A farmer surveys from his window with unalloyed delight, the field now groaning by superior cultivation, under twice the crop of previous years. While he gains it, the world gains it. It is so much added to production. But multiplied and dubious are the ways in which a townsman makes his gains. Sometimes 'tis the pound of flesh. Sometimes 'tis extortion. Sometimes a double value is given to the raw material, but oftener his gain is loss to another. To say the least, the townsman is sometimes exposed to the inevitable necessities of expediency and dishonor. From such necessities the farmer can, if he will, always be free.

"God made the country, man made the city."

Just so superior as God's works are to man's works, just so far superior are the studies of the country to the studies of the town. If you look upon the rich and gorgeous development of nature from spring to fall, from the tiny germ to the abundant crop, with no more delight than on piles of stone and brick and mortar, then your life any where will be desultory, hard and dull. When he gazed upon the miracle of his own frame in awe and admiration, David exclaimed: "I am fearfully and wonderfully made." Yet each plant and spire of grass, each tree and fruit, each creature, every form of vegetable and animal life, is a growing and living miracle, no less wonderful than the frame of man. If he studies them all as living illustrations of scientific truths, and he delights at each new discovery of the capacity and properties of a plant or an animal, and each new insight into the laws which regulate its propagation and perfect growth, then indeed, will a farmer become a philosopher and a man of science, and his life will be a ceaseless round of triumphant exper-

iment and success. From the most trifling act to the performance of the highest duty of a noble calling, his life will be full of delightful satisfaction. The favorite domestic animal which he has watched and fed from a nursling, seems to lick his hand in gratitude, and almost eager to contribute to his support. Look along that avenue of stately trees, groaning beneath an abundance of delicious fruit, or throwing a refreshing shade over the weary traveler. But yesterday it was a bundle of mere twigs, which he providently brought home, grasped, perhaps, in a single hand. It may be that wide fields around him have been transformed from the wilderness by his energy, and now blossom like the rose. No groans nor tears, no sinks of misery and crime, no squalid poverty are witnessed in his daily walks and in the performance of his daily duty. His mind need not be tortured with intense anxiety, because struggling on the verge of commercial ruin. He runs less hazard of having his body racked with every disease to which muscle and nerve, and head and stomach are liable. But I fear I am straying wide of my subject. I wished to show that the pursuit of a farmer may be rendered the most intensely interesting, the most noble and the most engrossing to all the faculties of both body and mind, of human occupations. As soon as it is made so, it will become the most profitable and and thrifty also. What a farmer wills his life and profession to be, that will it prove.

An enlightened appreciation of the inflexible laws which govern health, growth, decay and death in the animal and vegetable world, is especially important to the prosperity of a farmer. There is no such thing as luck. A violation of nature's laws meet with swift retribution—obedience to those laws is sure of reward. The laws of labor and success know no favorites of clime or race. They scorn the control of caprice; they are inexorable as fate—a slave to none —a master of us all. Whoever attempts to master them is himself mastered. Whoever yields a cheerful obedience becomes an equal partner in the fruits of the harvest. God's laws are written in the growth of the most obscure plant, as well as in the fearful movements of the elements. Certain retribution follows alike the overtasking and abuse of the earth, the violation of his own physical constitution on the part of the man, and the neglect of the humblest breath-

ing thing around him, with the certainty, if not rapidity of the electric shock.

Labor must be performed in the promotion, not in contravention of natural laws. It is the object of Societies, Fairs, Schools and Papers, to induce men to observe these laws. That is the object of our association. But it is useless to attempt the instruction of an unwilling, a bigoted or a stupid mind. It is the part of a man to guide his labor by intelligence. Brute labor is not sufficient for the farmer's success. But in order to bring the best minds to the work of husbandry, it must be respectable and honorable to toil. Happily, in this country, it is no longer considered respectable not to perform one's share of the toil, and even the drudgeries of life. Even the possession of a great fortune does not now exempt a man, in public estimation, from his share of duty and labor. The greater the trust, the greater the exception. The man who coolly sits down to gormandize and vegetate is looked on with contempt. A Berkshire can eat more and fatten faster. Among the most grateful signs of the times, is the fact, that it is becoming fashionable to work. The more pervading these cerrect ideas, the more certain the productiveness and elevation of the farmer's calling. If all labor is honorable, that labor is most so which educes, evolves, creates most from the natural elements, and far more creditable, than that which converts and exchanges products, and perhaps carves out a cruel, an unjust, or an extortionate profit in the operation. That labor should be held most in honor which engrosses most all the powers and faculties of a man, and brings the laborer nearer to the character of a maker and a creator. Surely no toil so nearly fulfils those conditions as that which is bestowed on the earth, the common parent of us all.

One object in assembling here is, by attrition of mind with mind, by a comparison of the results of our labor, by a free interchange of knowledge, to enlighten, and at the same time increase the results of toil. Our first object should be to wipe away all prejudices. We should come together with open minds, closing them against nothing. A prejudice is often a small object held directly before the eye, but obscuring a great and vital truth. Embody an error in a maxim or pithy epigram, and it will take a volume to disprove it. I have a

neighbor who once picked up the homely addage, that "the swill pail breed of hogs was the best breed," and he has taken a peculiar pride in making fine pork out of lean skeletons ever since. One of his neighbors raises more pork, at half the cost and in half the time. The same man, if he was a gun-smith or a shoemaker, would shield himself behind a maxim, if it had a smack of vulgarity about it, and carve out a gun stock or shoe last, with a drawing knife and chisel, rather than turn in a lathe a better article at half the cost. Yes, let the farmer, when he meets his brethren here, meet to instruct and be instructed, and sever himself from little prejudices, partialities and traditions. If he does not, he will find himself, at length, as completely bound as the Lilliputians bound Guliver, with their tiny and attenuated threads. Vices and faults in practical life are like weeds; truth, like the plant they choke. Error is often like the seed of the thistle, which, floated by the gossamer furze that covers it, is scattered all over the earth; while truth, like the seed of the most delicious fruit, is precipitated to the earth, by its own weight and worth, and rots where it falls. On one of the blocks in the walls of Abbotsford, that classic memento, at once of the genius and the vanity of Sir Walter Scott, a fabric in which the antiquary, and poet, the artist and the historian, have conspired to produce one of the most exquisite pieces of mosaic in architecture, which the world affords, is deeply chiselled this inscription in Latin. I give the original as inscribed, but will translate it:

"Virtus rectorem, ducemque
Desiderat. Vitia, sine magistro, discunter."

"Virtue needs a leader and a guide: Vice is taught without a master." In Latin or English, the sentiment contains a great and vital truth, that ought to be inscribed on the walls of every author, teacher, legislator and farmer in the land.

I know not whether there are any among us, who repudiate all instruction, and close their eyes to all new truths, which come through books, societies, and agricultural papers. If there are any such present, I would suggest to them, that they are setting up their own limited knowledge and experience against the aggregate knowledge and experience of the rest of mankind. Books, reports, expositions of experiments, repositories of seeds, and such exhibitions as you witness to-day, embrace the knowledge and experience of millions.

Under the eye of no single man at home, can be embraced more than the knowledge and experience of hundreds. There is an old maxim that it is best to let "well enough alone." It depends upon what "well enough" means. As a maxim for a farmer, it is pernicious. I hold in my hand two peaches. They grew upon trees which sprung from different pits of the same original tree. This large, blushing, richly tinted, melting, thin skinned, and small stoned peach, is cultivated fruit. This small, woolly, tough skinned and large stoned peach, is the natural fruit, the "let well enough alone" kind. I hold in my hand two apples, plucked from the same tree—one from a grafted, and one from a natural branch. One is the cultivated fruit; the other is the "let well enough alone" kind. You perceive the distinction is as marked in the apple as in the peach. These are a type and fit illustration of progress and perfection, in every branch of agriculture. These represent the Berkshire and the Byfield; those the alligator and the pike breeds. These represent the South Downs and Bakewell's; those the coarse wooled and long legged race. These represent the Durhams and Devons; those the Porcupine and Racer tribe of cattle. These represent the finer varieties, and crops of wheat; those the crops half rye and chess and cockle. These are the product of the lucky man; those of the unlucky man. These are thrift; those are unthrift. These were grown under that flood of light which modern skill and science have shed on the subject; those Ham and Shem brought out of the Ark in their pockets. There is just as much difference in farms and farmers. These represent the farms to which your prizes will be awarded; those the farm of my unlucky neighbor, which I attempted to describe. These represent the man whose mind is always open to instruction—and absorbs knowledge as the sponge does water; those the man who rejects instruction and despises your exertions. There is just as much difference in the very children of the growing generation. These represent the human Bakewells and Durhams who are destined to grow up enlightened and fully developed men; those the stinted, dwarfed and neglected of our species, whose parents are complacently content to "let well enough alone."

Here let me remark, however, that exhibitions of remarkable specimens, are not the surest evidence of the prosperity of a farming peo-

ple. Wealth and ostentation may gather at our Fairs, from other States and other lands; all that can gratify the pride of the owner, and the fancy of the connoisseur. It may all be removed and leave no no impression, except that the cost was disproportionate to the value. What we want, is a diffusion of universal taste, an universal knowledge, an universal appreciation, and an universal enjoyment of the best gifts of nature, improved to the highest degree by the keenest practical skill, and enlarged science of all. This society fails to perform its duties, if it fails to animate every man with a new relish for his pursuit, and inspire him with fresh courage and enlarged hopes. Not only does it fail if it fails to encourage every man, but if it fails if it does not embrace in its plans, the increase, development and perfection, not only of all the farmer now produces, but of all productions congenial to our soil. There is a quackery afloat, which such societies as ours could do much to explode. A farmer is said to have a peculiar faculty at one branch of his pursuit. One man is said to have a knack at raising corn or cabbages; another a knack at raising horses; another a knack at breeding pigs. Now there is no such thing as a peculiar knack. The same obedience to nature's laws and requirements will improve all alike. From the chicken to the horse —from the onion bed to the wheat field, all can be harmoniously perfected by equal application of skill and patience. Persuade men to observe that higher law, the defiance of which is decay and death, the observance of which is health and life, and knack as well as luck will soon be obsolete ideas.

The Legislature of 1849 appropriated four hundred dollars to this Society, to be used in premiums for the promotion of Agricultural Improvements—a not very munificent sum, especially when made by a Legislature who drew from the public treasury more than seven times that sum to pay their private postage. They are welcome to all the glory of such discriminating statesmenship. Posterity will dwell with unalloyed rapture on that page of the history of this great and powerful State, which describes in swelling periods, the magnanimity, wisdom, and comprehensive benevolence of that Legislature, which encouraged the great art of arts, without which our race could not survive, by an appropriation of four hundred dollars. However, the act to which I allude, was sagacious in one respect. It required

that detailed statements of the mode and manner in which each improvement was effected, be furnished by the successful contestant for a prize. The Legislature also authorized the publication of the proceedings of the first annual meeting and Fair. I notice the book embraces several addresses before the State and County Societies, and a quite meagre skeleton of their proceedings; one Essay, and pretty full catalogues of the names of exhibitors, and the awards of premiums It is well enough, perhaps, to publish these addresses. They will often, however, be of little or no practical value. One year a distinguished and aspiring politician will address you. He must walk as though walking on eggs. He must flatter prejudices here, and apologize for errors there. He must jostle nobody. The next orator may be a Belles Lettres scholar, who has a reputation to sustain for the elegance of his dictation, and the music of his cadences. With harsh and wholesome truths he has little to do. The next is an empty declaimer, who in swollen sentences dilates to the farmer, of his honesty and superiority, and exemption from all the responsibilities and duties of other citizens. There is no meat in that nut. The fourth, like your humble servant, may have all the faults and none of the merits of the others. Go on in future, if you please, and gratify the vanity of us all, but don't forget the weightier matters. One short expose of sturdy John's experiments, or thrifty Molly's industry, may prove more instructive than a whole oration. On this account it should be our duty to preserve the history and progress of each experiment, in bringing a product or animal exhibited to perfection. A fat ox is of no account, except to gratify our taste, if he costs twenty-five cents per pound. The fatter the worse, perhaps. We want exact and minute statistics; a debt and credit exhibit of cost and result. If a man rears a healthy sheep. which yields six pounds of wool, worth forty cents per pound, with as little expense as a neighbor rears one which yields two pounds of wool, worth twenty-five cents per pound, and you demonstrate it, and promulgate it, you confer a public benefit by your act. How a thing is done, not who did it, is what we wish to learn. There is nothing so humble that it is not capable of improvement. If worth improvement to one, it is to all. If a new fact, or a new truth is elicited, it is worth preservation. There is not a man so humble, that the proudest and most sagacious

may not learn from him something. By what steps of patient toil, of repeated experiments, of self-sacrificing devotion, a successful result is accomplished, is what we ought to publish and proclaim. If one man is able to produce sixty bushels of wheat to an acre, it is important to know how it was done. If another man's wheat field produces nothing, it is still more important the reasons be understood. If farmers in England produce fifty and sixty bushels of wheat, regularly, per acre, and we produce ten or twelve, the reasons why should be told. It is to be hoped that the pub.ication of our Annual Transactions be secured and perpetuated. The Annual New York Transactions embrace now a volume of about a thousand pages. A farmer of Madison county declared that what he had learned from a single article on the manufacture of cheese, was worth more than ten times the cost of the volume. These transactions embrace a vast experience, gathered at home and abroad, a comparison of opinions, acute discussions, and a great variety of minute and valuable knowledge.

It is still more important that through the Agricultural press, farmers have a full and free interchange of opinions; that the result of each successful experiment be published. In these days there are few niggards who will not spend some steps, some time, and some money, to enlarge the range of human comfort, and human productions. There are men so dead to human sympathies, as to draw in their heads like a turtle, or close their shells like an oyster, when they hear the footsteps of human brotherhood. But they are few. The more civilized men become, the more comprehensive their sympathies; and the heart of a true man and a patriot, beats quicker as he learns of discoveries that benefit his brother man, in whatever calling engaged. Let farmers then teach, and be taught, through their own peculiar press. Have you ever remarked how intensely anxious the commercial world is, respecting the rise of a half penny on cotton, or a sixpence on wheat? how the slightest fluctuation in the cost of transportation is heralded to the world? Truly, it is equally important to use similar organs, to incur similar expense in disseminating knowledge which will cheapen and multiply the production of these very crops, as well as affect their subsequent value. Even quack doctors, the venders of bitters, lozenges and vermifuges,

sustain their own press. But the knowledge scattered should be minute, exact, bearing locally and practically on each subject. We should sustain with heart and hand, by contribution from the purse and the head, the Agricultural papers of our own State. If farmers recognize and sustain no organ, they are in the rear of their generation, recreant to their avocation, to themselves and to the State.

To afford the rising generation of farmers abundant opportunity to put theory to practical tests, and to qualify themselves for their future occupation, the establishment of Agricultural Schools has been a favorite plan with many. Our last Legislature passed a joint resolution instructing our Delegation in Congress to use all honorable means to procure a donation of 350,000 acres of land, for the establishment of Agricultural Schools in the State, and ten thousand acres to enable this Society to maintain a central office, and library, and also to promote by their exertions the establishment of an Agricultural Bureau at Washington. I would here observe that this State is entitled to nearly a million and a half acres of land, if the General Government do the same justice to us, that has been done to the other new States, in the donation of lands. Surely no more fit and judicious application can be made of such lands, than to the diffusion of such knowledge as will tend to develop their hidden wealth, and to settle them with an enlightened people. The new Constitution provides that the Legislature may appropriate the proceeds of the twenty-two sections of unappropriated salt spring lands to the creation of an agricultural school, if desirable; and to render it more effective, may connect it as a branch with the University. These acts show an enlarged and anxious interest on the part of the recently delegated authorities of the State in Agricultural Education.

So far from being of less, I deem peculiar schools devoted to their interest, more necessary to the farmer than any other citizen. On a secluded farm many kinds of knowledge cannot easily be acquired. Single isolated men, have often neither leisure nor money to make even those experiments in which they have confidence. At the same time they would eagerly put in practice methods already tested. Ridicule has always been, and will always be, a great obstacle in the way of the farmer. The reason is obvious. Failure costs too much. It might cost his bread, his subsistence, and involve him

in vexation and ruin. In other trades, trials can be repeated every day. The errors of to-day may be remedied to-morrow. A mechanic can often subject his work to mathematical rules and tests. Not so the farmer. It may take the round of the whole year for him to test a new process. He always works in union with, or counter to the mysterious operations of the elements. In a school, where the very object is repeated trial, through success or failnre, even failure may prompt to renewed exertion, and failure costs no vexation, no composure of mind. An hundred experiments on the subject can be tried simultaneously, and the different results be visible together. Men learn by attrition, by contact, by intercourse. Neither the steel nor flint will emit a spark when apart. When brought in collision the spark flies. The more devoted a farmer in after life to his pursuit, the more secluded he may become. A truly powerful mind may become somewhat benumbed by retirement and solitude. Prejudices root themselves on a mind thus separated from others. In those trades and pursuits where there is a constant collision, we have all remarked how apprentices of small original capacity learn to perform all their duties with accuracy and dispatch, and how all their powers and fuculties seem to be developed and perfected by use. I can see none but a good result from bringing several hundred young farmers together, in constant converse, engaged in the same experiments, regardless of failure or success, startled often with results in which they had no confidence, impressed now with the fatal consequence of abuse, and now delighted with a triumph exceeding their most sanguine hopes, taught to spurn the carpings of the mole-eyed doubter, and driveller, and to witness the rapid acquisitions which can be made in a year, in a pursuit where their ancestors trudged alone for a century with hardly visible improvement. My word for it, they will go forth, more enlightened farmers, and more valuable citizens.

The results of different kinds of culture; of different manure on different soils; the adaptation of different seed and breeds of cattle to different climates, all can be tested simultaniously, in schools. On a single farm they must be tried singly. The comparative nutriment and value as a crop of each production, and its effect on each different animal can be tested. The destructive course of one kind of till-

age, and the beneficial result of another, can be tried side by side. At what stage to cut timber, to mow hay, or harvest wheat, are matters, simple as they seem, about which there are as many different opinions, as there are men. Yet, no one man has time or opportunity to try experiments enough to enable him to arrive at a sound conclusion. The effect of pure air and sun-light, and exposure, on crops and animals, and the effect of deprivation, can be tried. I knew a man once to try to fatten a pig in the dark centre of his barn, but the pig did not thrive, till let out so that sun-light revivified-him. The owner seemed to forget that the free air and light of Heaven was as necessary to the growth of a pig, as to impress rich tints upon the cheek of a peach, or his daughter's cheek. More than all, the ability should be acquired to test the capacities of a soil by chemical analysis, that a farmer may know when he purchases a farm, for what uses it is best adapted, and when he sell a farm, its true value. If he does not become chemist enough himself, he has made a great stride in knowledge when he has discovered that the soil of his farm can actually be analyzed, and its qualities tested. There are methods of arriving at the weight of cattle, well understood among cattle buyers, by measurement of the live animal. They estimate the weight with almost mathematical precision. Such knowledge should be imparted. Such a school should have a veterinary department, where the diseases and physiology of all domestic animals should be a study. I would have all diseased animals gratuitously treated there, and thus a man's own science should supersede the hired quackery which is about as likely to kill as to cure his animals for him. I knew a man sacrifice his horse laboring under an acute but not dangerous attack for one quarter his value, for want of very little knowledge on the subject. Why do young physicians go to Paris to learn their profession? It is to crowd much observation into a short space of time. A physician here in Ann Arbor might witness in his life-time a dozen cases of some peculiar disease. In a single dormitory of a Hospital of a great city he might witness in a few weeks a thousand cases of that disease, in every stage of its ravages, from the first incipient symptom to the last fatal result.

The application of the natural sciences to the daily business of life are no where taught thoroughly and practically. The use and ap-

plication of mechanical contrivances, the relative force of water powers, the geometrical knowledge that will enable a man to calculate with facility the contents of a cask or vessel of irregular shape, the exact cubic size of a hay stack or a coal pit, a barn, a granery or a wagon box, the weight of timber or reservoir of water, and the resistance necessary for its support; all these matters, pregnant with interest, and of daily practical use should be taught. It was but a short time since I saw a buyer guessing the seller out of one-third of the bushels his wagon box contained. An application of the square and reduction of the size to bushels, was only the necessary work of five minutes. Connected with such instruction the pupil should be taught how to draft deeds, contracts, bonds, and the ordinary instruments required in the transaction of business.

It is said that agricultural schools are an experiment. When Franklin flew his kite towards the clouds, it was an experiment. Fulton's first shingle boat on the duck pond was an experiment. So was his first steamboat, the Claremont, an experiment. The steamboats of Bell on the Clyde, and John Fitch on the Delaware, had previously failed. In Europe, Colman found a dozen agricultural schools in successtul operation. In our country, the first trials of such schools might be a failure, but our history does not teach that we are that pusillanimous and pitiful people, that we suffer laudable objects long to fail. It is quite too late to talk about a failure in plans and modes of education when the educator takes Laura Bridgeman, an almost inert mass of senseless matter, deaf, dumb and blind, and makes her a sentient, active, joyful and thinking being. Of one thing I am sure, that such schools would be most sure to fail among the people who most needed them. I can tell you of countries where they would be sure to fail, in those countries of Europe where they plow with a kind of sharpened stick, drawn by ropes tied to the oxen's horns, and where they pound their wheat between stones to produce flour, where the serfs are reckoned by tens of thousands the lords by tens. Brute labor, uncheered, unguided and uninstructed, must there be engaged in the culture of the soil. In such countries, production must be as limited, and the condition of the people as mean, as ignorance is impenetrable. No book-farmers there. No agricultural schools there. In such an atmosphere mil-

itary schools thrive best. One remark more on this topic, and I have done. We have a national military school; a successful one. I have no attacks to make, no slurs to cast upon it. But I will exhibit the fact that this great nation sustains one school which teaches how to kill—none which teaches how to feed the race. You pay the taxes and foot the bill. Ponder on this condition of things when you get home to your fire sides. I give this nut to crack to those who assume that it is no part of the duty of government to meddle with the matter, that it is not wise nor democratic to do so. Now, I deem it the legitimate sphere of either people or government to instruct and animate the tiller of the soil; to teach the head, to relieve the body of its burdens; to teach the producer to produce more, and with the same toil to feed and clothe and educate his children better. It is not only democratic, but it is the part of keen economy and wise statesmanship, "to teach a freeman to know all that a freeman should know best."

The profit, it may be asked—where is the profit of all your mammoth fairs, your societies, your papers and schools? Profit or no profit, it is quite sure that a vast amount of time and money shamelessly wasted, might be turned to these objects, without detracting any from industrial pursuits. Time cannot be bestowed on political discussions and conventions, with half the profit that it could in the promotion of agriculture. One party of men declare that a course of political measures will bless, another that it will curse the land, but in regard to the policy of raising two spires of grass where one grew before, of raising a better cow, a fatter pig, a larger cabbage, or a brighter child, instead of a bigger booby than our neighbor, we all agree. Any sudden or gigantic increase of national wealth, I do not expect from any appliances. Reform moves slow, communities move slow, and nature sometimes slower. To enlarge our annual productions of wheat, now not far from a dozen bushels per acre, to the average production of England or Flanders, now three times that quantity, I do not expect. Mr. Slocum, of New York, visited the farm of a Mr. Love, at Naseby, England, and found his harvest, thirty-two hundred bushels from seventy-two acres, an average yield of forty-four and one half bushels per acre. Mr. Love expected the result, as a matter of course, and Mr. Slocum expresses it as his

opinion that it was not much above the average of the wheat producing counties of England. Here is a wide field for improvement. Certain ruin would stare every British wheat grower in the face, if he did not produce twice the quantity per acre we do. This same Mr. Love paid rent and taxes on his land at the rate of eight dollars forty cents per acre. But secure the smallest accretion to each production, and the aggregate profit to the State, is almost incalculable. Suppose we have 600,000 acres in wheat. Increase the yield only one bushel per acre, worth seventy-five cents per bushel, and we save $450,000. Suppose we have a million of sheep in this State, and the value of each fleece is enhanced five cents per pound. More than $100,000 must be saved. Suppose we have 100,000 horses in the State, and we improve the value of each horse five dollars. Here $500,000 is added to our wealth. We have 400,000 neat cattle; save, by the breed or feeding, one dollar per head, and here we save $400,000 more. We have, perhaps, 400,000 hogs in this State. Suppose our pork cheapened fifty cents only, per hog, and here is a saving of $200,000 more. One cent saved on 500,000 bushels of corn and 500,000 bushels of potatoes, makes $10,000. Let us nurse, protect, improve 100,000 cows so that each shall afford one pint of milk per day more, worth one cent per pint, and $365,000 is saved—a sum large enough to school the whole children, and pay all the expenses of every public institution in the State. Such very trifling improvement in the wheat, corn, and potatoe crop, and in horses, cattle, sheep and hogs, would thus save more than $2,000,000 in this State alone. Who shall say that such an improvement might not be the result of a single Annual State Fair. We have all reaped the value of practicing on some single hint or word of advice; of the substitution of improved for shabby breeds of stock; of the use of the best, instead of deteriorated seed; of new modes of fertilizing; of improved modes of culture. We need to bring the knowledge of the mode and manner to every man's hearth and home, and bring visibly before his eyes the living results of improvement. Enhance the rewards of husbandry, throughout the nation, by that almost impercep ible ratio of increase which I have applied to seven branches of farming in Michigan, and more than $120,000,000 would be saved to the people, a sum large enough to pay all the expenses of the

General Government, and all the expenses of every State Government, and the interest on all the debts of the State and the Union.

It may be asked, why are we, after all, a comparatively prosperous people? I have only to say that, though prosperous, we might be more so. We are prosperous in spite of our multiplied defaults and neglect. As a people, in most respects, we are placed under circumstances eminently propitious. The nature of the constitution and laws under which we live—the general respect for law and order, in many sections of our country so voluntary and cheerful, as almost to appear instinctive—the legal right of all to a free participation in every favor, blessing or enjoyment—the periodical distribution of property, in consequence of the absence of all laws of primogeniture, or other partial or exclusive laws—the necessity all are placed under to labor, or suffer, to be men or paupers: and the paternal care of our gevernments over the education of the young—are all permanent and priceless guaranties of republicanism and final prosperity.

If any portion of our countrymen labor under disadvantages, they are generally local, temporary, and curable. In the freshly settled potrions of the country, people must, in a measure, be deprived of schools, roads, communionship, and that positive aid and sympathy without which they cannot enjoy the most perfect thrift. It requires a certain density of population to afford sustenance and support to many branches of industry necessary to a perfectly prosperous condition. Where all the arts and trades of life are practised, in near proximity, greater perfection seems to be exhibited in each. Even in countries cursed by an unjust and a cruel distribution of the earnings of labor, the effect of bringing all branches of industry in close proximity to each other, is strikingly manifest. Great Britain is regarded as a commercial and manufacturing, in distinction from an agricultural country. Yet wide as she has pushed her commerce over every sea and continent and island of the ocean—far as her manufactures have penetrated among every people, civilized and savage—far as the little white-cliffed isle has stretched her dominion over hundreds of millions, tributary to her all over the globe—yet far as she has excelled other nations in commerce and manufactures, still farther has she outstripped them in agriculture; and the agriculture of Great Britain is brought to greater perfection than that of

any other country, (Belgium, perhaps, excepted,) on the face of the earth. The rapid interchange of the products of a man's toil for the toil of a near neighbor, abridges, and sometimes destroys the cost of transportation. The inconveniences to a state arising from the fact of its being sparsely populated, must for a while be submitted to. They are neutralized, perhaps somewhat, by cheap land, cheap food, and an absence of all those evils and miseries incident to over-crowded communities. Yet, as naturally as in spring-time dormant seeds germinate and burst from the earth, just so naturally do new employments, arts, trades and professions, cluster and thrive where population becomes dense.

In this connection, let me warn you of the danger of engaging exclusively in one branch of agriculture. A cotton-grower who raises one article to sell, and buys all that he subsists upon, can never thrive. Neither can a tobacco grower—neither can a wheat grower. Any one crop is too precarious—is too much of a lottery. A good farmer ought to raise nearly all he subsists upon, and depend on his main marketable products for available means, and accumulation over and above his support. If a farming people engage exclusively in one branch of husbandry, too much labor and anxiety are crowded into one season of the year. They may have too much leisure at another. But let each man embrace in the economy of his life, numerous branches of his comprehensive calling. All his time can be employed, and he can save and produce much that he would otherwise be compelled to purchase. We have all marked the terrible gloom which the failure of the wheat crop has repeatedly thrown over the people of certain localities in our own State. Their crop failing, they have failed to meet obligations—they have incurred interest, loss of time, and perhaps legal costs; and not having stored up many necessaries they might have raised, they are doomed through another long year, to roll up still farther indebtedness. This is not all. Sometimes, as a retribution, almost perfect sterility follows. Professor Johnston is now lecturing to the people of Great Britain, and is telling them that this suicidal policy is with us a national sin, soon to prove a national calamity; that the process of sucking all nutriment from the soil, and restoring nothing, is general; and that as a national retribution for this wilful or ignorant violation of

the ordinations of Providence, large grain-growing sections of our country must soon become purchasers instead of exporters of bread-stuffs. Let it be the duty of this society to ward off such a calamity from our State. I defy the history of the world to show an agricultural people long and fully prosperous, who have devoted themselves to a single calling, and who in the main sold or exported nearly all they produced, and at the same time imported nearly all they consumed. For similar reasons, I doubt whether California, with all her vast exports, though in gold, in the form most tangible and convertible, and cheapest of transportation, will ever become, as an exclusively gold-digging country, an internally prosperous and abundant country. And why? Like all people engaged in a hazardous and precarious pursuit, their wants will be insatiable. Their crops will be limited. They will have no factories, and few mechanics. They will fabricate little or nothing from cotton, wool, or iron. They will mainly feed and clothe themselves on importations. If this is so, the shoemaker at Lynn can show at any time, in his nicely painted and carpeted dwelling, more of the saving from California gold, than the digger himself—the one in the meantime inhaling an invigorating breeze, and living in a high state of civilzation—the other suffering all the while the life of a civilized man, temporarily barbarianized.

No State was ever more happily situated for diversifying employments than ours. We have a fortunate geographical position, centrally in the cereal zone of the earth—a latitude favorable to the production of the sustenance of man in variety and abundance, but in a climate untoward enough to compel the exertion of every energy and faculty. All history shows that to the development of the individual or nation, all their capacities must be tasked and exercised. Exemption from the constant use of all his powers, is the greatest curse that could befal a man—necessity to labor, the greatest blessing. A condition of life approaching adversity, is to the man what a harsh and gritty grindstone is to the instrument applied to it. It gives a trenchant and resistless edge; while a prosperous condition is like a stone, chalky and frictionless, which may give a little polish, but no effective sharpness. Darwin tells the story of bees carried to the West Indies. The first winter they laid up stores of honey, but in-

stinctively learning in a single season that they were exempted from taking the precaution, they secured it no longer. They became idle and indolent. And all were drones together. Such is the enervation on man and animal, and even insects alike, where climate exempts from toil. We have a most fortunate position, then, in regard to climate.

Having in the bowels of the State, exhaustless supplies of iron, copper ond coal; being well, if not abundantly, supplied with plaster and salt; our lakes teeming and alive with fisheries, as exhaustless as those of Newfoundland; burdened with lumber adequate to supply large demands for long years to come—many great branches of industry must be developed. We must inevitably become the great mining, fishing and lumbering State of the North-West. Our territory being surrounded by navigable waters, and the lower peninsula belted by one railroad and penetrated by others, so that no spot of our whole surface is more than ninety; and most of it within thirty miles of steam or water communication—and thus favorably situated for ingress, egress, and exchange, we must become a commercial State. Raw material, cheap food, and water power being abundant, if not inexhaustible, we must finally become a manufacturing State. The day may be distant, but imagination pierces the time, when over the whole broad area of our territory, the pursuits of men will be sufficiently diversified, markets multiplied, and all the great branches of human industry interlaced like net-work. Then, instead of our whole attention being engrossed by wheat and wool, and a few great articles of export, the myriad smaller branches of agriculture will be profitably pursued.

In all I have said, I wish to impress upon your minds deeply the conviction, that a nation's thrift, well being and glory, consists in an uniform and general developement. Let every man be an enlightened freeholder. If he will not seek the light, carry light to him—to the darkest recesses in which he may immure himself. We want no mammoth oxen, nor mammoth crops, if they are to be regarded as matchless exceptions, and teach no lesson—if we regard them with the idle wonder with which children gaze on a menagerie. We want an all-penetrating impression made of the health, beauty, productiveness and perfection, to which animal and vegetable life can be ma-

tured, and the almost miraculous agencies by which human toil can be abridged—if we improve all the facilities which God and nature afford; if we use and not abuse the trust. Our efforts fail if they fail to do this. The people of our whole nation ought to be placed on an elevated table-land of prosperity, opulence and civilization, of which the world has hitherto afforded no parallel. Compared with any nation of Europe, the aggregate of civilization is already in favor of the American people. Tell me not of an empire whose millionth man is a Brougham or a Wellington. Tell me not of learned men and vastly endowed institutions. Tell me not of treasures of science and princely patronage of arts. All these may be, as they have been, the grace and boast of a despotism. That is the most civilized people, of whom each individual is a fully developed, thinking man, who understands his duties, his responsibilities, and his rights; and that is the most prosperous people, where prosperity is most equaly diffused. The forest, diversified with a few trees of collossal size, casting their shade over dwarfed and stinted bushes, compares not with that wide scene of richness, luxuriance and beauty, where all rise in grand and equal proportions, their branches interlaced, supporting and supported.

Legislative Proceedings.

CONCURRENT RESOLUTION relative to publishing the Annual Report of the Michigan State Agricultural Society.

Resolved by the Senate, (the House of Representatives concurring,) That three thousand copies of the First Annual Report of the Michigan State Agricultural Society, be printed in pamphlet form, stitched and covered, like the Annual Report of the Superintendent of Public Instruction, that are reserved for the State Library; one hundred copies of which shall be for the use of the Senate; two hundred copies for the use of the House of Representatives; thirty copies for the use of the State officers; thirty copies for the State Library; and the remaining copies for the use of said Agricultural Society, and shall be placed in the hands of the Treasurer of said Society, when completed, subject to the order of the executive committee of said Society.

This concurrent resolution shall take effect and be in force from and after its passage.

Approved February 5, 1850.

JOINT RESOLUTION relative to furnishing certain Laws, Journals and Documents to the Michigan State Agricultural Society, for the use of a Library.

Resolved by the Senate and House of Representatives of the State of Michigan, That the following laws and documents, be and they are hereby donated to the Michigan State Agricultural Society, (if it can be done without reprint, or injury to the State Library,) to aid said society in establishing an agricultural library, at such place and under such regulations as the executive committee thereof may prescribe, viz: one copy of the revised statutes of 1838 and 1846, one copy of the session laws, one copy of the joint documents and journals of the Senate and House of Representatives of each Legislature since and including the year 1839, and also one copy of the session

laws and documents of the present Legislature, and of each successive Legislature; and the Secretary of State is hereby authorized and required to transmit to the recording secretary of said society the above named laws and documents as soon as practicable, who shall receive the same and place them in the library aforesaid.

This joint resolution shall take effect and be in force from and after its passage.

Approved April 1, 1850.

JOINT RESOLUTION relative to a donation of land by the General Government, for establishing Agricultural Schools, and for other purposes.

Resolved by the Senate and House of Representatives of the State of Michigan, That our Senators and Representatives in Congress be requested to use all honorable means to procure of the United States a donation of three hundred and fifty thousand acres of land to this State, for the purpose of establishing and maintaining Agricultural Schools therein, at such places and under such regulations as the Legislature thereof may prescribe; also to procure a donation of ten thousand acres of land to aid the Michigan State Agricultural Society, in establishing and maintaining a central office and library for the use of said Society; and also to use their best endeavors to procure the passage of a law to establish a bureau of agriculture in the department of the interior, or some other appropriate department at Washington, whose province shall be to superintend and promote the great interest of agricultural improvements in the nation.

Resolved, That the Governor of this State be requested to forward copies of this resolution to the President of the Senate and Speaker of the House of Representatives, and our Senators and Representatives in Congress.

Approved April 2, 1850.

J. C. HOLMES,
Secretary Mich. State Ag. Society.

Thermometrical Observations made at Ann Arbor, Michigan, during the year 1850.

BY PROF. J. HOLMES AGNEW.

	January.	February.	March.
Maximum,	52° on the 26th.	55° on the 27th.	55° on the 31st.
Minimum,	11 " 5th.	5 " 4th.	14 " 4th.
M'nt'ly r'ge,	41	50	41
Mean,	31. 5.	30	5. 34. 5.

	April.	May.	June.
Maximum,	78° on the 30th.	35° on the 28th.	90° on the 14th.
Minimum,	24 " 14th.	38 " 20th.	54 " 10th.
Mo. range,	54	47	36
Mean,	51	61.5.	72

	July.	August.	September.
Maximum,	95° on the 27th.	89° on the 9th.	84° on the 23d.
Minimum,	63 " 18th.	56 " 27th.	41 " 30th.
Mo. range,	32	33	43
Mean,	79	72.5	62.5.

	October.	November.	December.
Maximum,	72° on the 4th.	74° on the 5th.	51° on the 3d.
Minimum,	28 " 30th.	21 " 21st.	3 " 24th.
Mo. range,	44	53	48
Mean,	50	47.5.	27

J. C. Holmes:

Sir—The above is a correct table, as far as it goes. The indications of the barometer and of the rain guage, I cannot furnish for the present year. But ere long I expect to receive a complete set of instruments from Washington, which will enable me, in future, to furnish very full and accurate reports.

In January, snow fell four times, varying from two to seven inches in depth. Rain three times. In February, snow three times, rain three times, lightning once. March, flurries of snow eight times, rain four times, hail once, lightning and thunder three times. April, rain eight times, snow squall once, lightning once, Aurora once. May, rain twice, lightning once. June, rain eight times, fog once.

July, rain nine times, fog once. August, rain nine times, fog thrice, thunder twice. September, rain seven times, thunder twice, frost twice, Aurora once. October, rain seven times, lightning twice, Aurora once. November, rain five times, flurries of snow three times, fog once. December, rain three times, snow ten times, including flurries, night fog twice.

Yours with high respect,

J. HOLMES AGNEW.

Ann Arbor, March 1, 1851.

REPORTS

OF

COUNTY AGRICULTURAL SOCIETIES.

FOR THE YEAR 1850.

Berrien County Agricultural Society.

BERRIEN SPRINGS, Berrien Co., Mich.,
November 8th, 1850.

DEAR SIR:—The first "Fair of the Berrien County Agricultural Society" was held in the village of Berrien, on the 19th of September last. As a first effort, it was encouraging. The number in attendance was large, and the spirit manifested argued favorably for the future prosperity of the Society.

Yours,

WM. SMYTH FARMER,

Secretary.

To J. C. HOLMES, ESQ., *Sec. Mich. State Ag. Soc.*

Essay on Farms and Farming, adapted to the wants and interests of Calhoun County, submitted to the Calhoun County Agricultural Society: by Stephen H. Preston, Esq.

One of the most common characteristics by which the peculiar quality of the soil is ascertained, is the growing timber. In this county a large portion of the soil is known as the *oak openings*, of which the white oak constitutes the leading variety. This soil is almost universally a yellow calcareous sandy loam. There are many tracts of the burr oak soil, which is generally a dark, calcanous sandy loam, richer, more fertile and more durable than the white oak. This soil is generally esteemed the best in the State, many preferring it to the prairie. There are only three small prairies in the county, if the plains of Marengo and Cook's, in Homer, are excepted. There is some heavy timbered land, consisting of beech, maple, whitewood and the usual variety of timber indigenious to this description of soil. There are many marshes which, instead of being regarded as waste land, yield, in their natural state, from one to two tons of hay, and afford early food for stock before the grass starts on the openings. Most of these marshes, by ditching and draining, can be greatly improved and conververted into arable land, or retained as permanent meadows. Even the tamarack swamps, regarded as the only waste land in the county, are valuable for their timber, and most of them, by clearing, ditching and draining, will, in a few years, be converted into meadow and pasture land.

The component parts of soil can only be determined with accuracy by chemical analysis. Yet most observers can at once determine whether clay or sand predominates; whether the soil is gravelly or loamy, of its permeability to water, and of its power to absorb moisture from the atmosphere.

A good soil is a compound of one-third coarse sand, one-third very fine sand, and one-third impalpable matter, in which there is silica in the greatest quantity, alumina and lime in a smaller, without any appearance of tannin. Such a soil is readily discovered by pouring in-

to the water which has filtered through it, a weak solution of the sulphate of iron; if a blackness appears, the gallic acid is present, and in proportion to its quantity the soil is less fertile. In this case, quick-lime is the best corrective.

The existence or absence of lime in the soil is easily ascertained by moistening a little of the soil with water, and pouring on it a few drops of muriatic acid, and by the greater or less disengagement of bubbles, the proportion of calcareous matter in the soil can, to a certain extent, be ascertained.

By mixing the soil with water and pouring it into a graduated glass tube, and shaking it well, in a few minutes the coarse sand is deposited at the bottom, then the fine sand, and lastly the clay and impalpable matter, of which the lightest remains the longest undeposited. Distinct rings of each substance are observed, and the graduated tube exhibits the proportion of each deposit. The oak opening soil of this county will be found, by chemical analysis, to contain all the ingredients very nearly in the proportion requisite to constitute a good soil, according to the above definition.

Modern agricultural chemistry has not only furnished various modes of ascertaining the various qualities of the soil, but has analyzed and revealed to all the component parts of the various products of husbandry, and inculcated the philosophical truth that all soils should contain, or be made to contain by artificial means, the various substances, in suitable proportions, which constitute, by chemical analysis, the component parts of the products of the particular soil. Mixed husbandry, or the raising of grain, roots, the grasses and stock, constitutes as it should, the chief employment of each farmer. This course of husbandry is the most profitable, and best conduces to the preservation and ultimate improvement of the soil, by furnishing an annual supply of barn yard manure.

Wheat ond wool are the leading staples of export from this county. The wheat is manufactured into flour at home, there being an abundant supply of flouring mills; but the wool is chiefly exported for eastern manufacturing establishments. The large crops of Indian corn and other cereal grains are as yet mostly consumed on the farm, in feeding stock and fattening pork. A surplus of beef and pork is annually produced for market. As there are no starch fac-

tories, and but four distilleries in the county, the annual crop of potatoes is generally consumed on the farm, each farmer only devoting a small portion of his land to this crop.

As the object of the premium would seem to be, to procure a general essay on the various objects of farming adapted to this county, a concise statement of the best varieties of grain, of the best method of their cultivation, also of roots, the grasses, the breeding of stock, the cultivation of fruit, and the improvement of the soil by the application of manures, by ditching, draining and a judicious rotation of crops, would seem to be required.

As much practical, as well as theoretical knowledge on the subject of agriculture, is already possessed by those who have called for this essay, unimportant details may be omitted. In breaking up the residue of the oak openings, a strong team of five yoke of cattle will be found necessary from the rapid growth of grubs, owing to the exclusion of fires, by the necessary inclosures attendant on the improvement and settlement of the country. A furrow eight inches deep will be found sufficient on our sandy soils for the first crop; if deeper plowing is required, the sub-soil plow in the subsequent cultivation of the land, can be employed to advantage. The breaking ought to be done in June and July, taking care to cut as many of the grubs as possible with the plow; then, with a heavy harrow drag the breaking lengthwise of the furrows, which will expose to the surface many of the loose grubs, which should be picked up into heaps and burnt on the fallow; then, by harrowing the ground across the furrows, more grubs will be brought to the surface, to be picked up and consumed in like manner. The remaining grubs should be cut up by the roots with an axe, or extracted with the grub instrument, and likewise consumed.

There is no danger in expending too much labor in freeing the soil of grubs, and pulverizing and making it mellow by the use of the drag for the reception of seed. Wheat is generally the first crop, and as a general rule should be sowed from the 10th to the 20th of September. Later sowing has been adopted only for the purpose of destroying insects, and has been attended with favorable results. Late sowing, together with the use of the roller and the selection of the best flint varieties of seed, are the only effectual remedies yet em-

ployed against the insects. The seed should be washed in a strong solution of salt and water; in brine that will bear up an egg for three or four hours, skimming off the substances that appear on the surface, and then rolled in quick-lime. This will tend to destroy smut and to facilitate the germinating of the seed. One and a half bushel of seed to the acre is amply sufficient if sowed broadcast, and five pecks, if sowed with the drill. A larger quantity of plump than shrunken seed is required; late sowing requires more seed than early, as there is not so long a time for the seed to tiller; a poor soil requires more seed than a rich one, as the seed tillers better in a fertile soil than in a poor one. A large quantity of seed produces an early growth of light straw and head; but the heads do not fill well and the aggregate yield is diminished. The tendency of wheat to tiller or send out new shoots is very great. One seed has been known to produce 100 stalks. By thin sowing wheat tillers more than in thick. By early sowing wheat chiefly tillers in the fall, but in late sowing this is not done to any extent till the next spring. The advantages of the drill are highly recommended, as requiring less seed, and producing an increased yield. [They are extensively manufactured in western N. Y., and have been recently introduced on the prairies of the west.] But, until the stumps are extracted, broad-cast sowing will probably continue for sometime on the openings. In extracting stumps, instead of employing the patented machine, which costs some $200, a simple instrument can be used, made in the shape of a drag, of suitable sized timber, larger at the butt than at the top, so as not to press into the ground, and fastened at the top with a strong band of iron, and a ring for the chain. The length of the instrument may be about six feet, and placed at a short distance from the stump, with a slant of the instrument towards the stump, so as to get as much purchase as possible. By fastening a chain around the stump to the ring of the stump-extractor, and the chain which the team draws to the same ring, a purchase is obtained of a powerful lever to enable the team to lift out the stump. In the spring of the year, by digging around, and if necessary, cutting off a few of the roots, most of the stumps, when the timber has been cut about ten years, can be easily extracted.

As soon as the wheat is sown, the ground should be thoroughly

dragged each way, and upon our sandy soil the roller can be employed to follow the drag to great advantage, rendering the soil more compact and firm.

The best variety of seed should be obtained. More care ought to be taken in selecting and changing seed wheat. There are many known varieties of winter wheat, as the White Flint, Harmon's White Flint, White Provence, Indian Wheat, Red Bearded, Hutchinson, the Kentucky White Bearded, or Canada Flint, Mediterranean, Etrurian, Talavera, Aguirro. Blue Stem, White Blue Stem, Hackleman Egyptian, Smyrna, Reed, Many Spiked, or Wild Goose Wheat, Mummy, English Golden Drop, Georgia, Zimmerman, Holland, Oregon, Yorkshire Brown, Mount Vernon, Tuscany and Polish Wheat. A description of each variety is omitted, and those esteemed the best for this county, selected. Harmon's White Flint is the white flint improved by Gen. Harmon, of Wheatfield, Monroe county, N. Y. The heads are not long, but well filled with 30 or 40 grains; the kernel is white, flinty and large, with very thin bran; they are firmly attached to the chaff and do not shell out except when very ripe; the heads are rather drooping, with few arms or beards; the straw medium length, very white and strong; it is little injured by the Hessian fly or rust, and will endure a good deal of wet weather. Its weight is 64 lbs. the bushel, and its flour very superior.

The Mediterranean was first introduced into Maryland from the Mediterranean sea, and has been improved in this country. It is a light red chaff, bearded; berry red and long; very flinty, ripens early, escaping both the fly and rust. It is liable to shell, unless cut and secured early; its bran is thick, and the dark color of its flour was formerly some objection, but by the use of Bentz's invention of *unbranning* the wheat upon grinding, it makes a good white quality of flour. It yields more than most other varieties, frequently averaging from 30 to 40 bushels the acre, and weighing from 64 to 66 lbs. the bushel.

The Etrurian is an Italian wheat, imported by Commodore Stewart, and possesses advantages even over the much admired Mediterranean; the defects of the Mediterranean are its beard and weakness of straw, causing it sometimes to lodge; whereas the Etrurian possesses a strong, vigorous stalk, is bald, with a beautiful long smooth

head, ripens early, escaping insects and the rust. Its berry is of superior quality, being round, plump and white, with a remarkable thin bran. It equals in yield and weight the Mediterranean, and its flour is superior. Those who have raised it pronounce it the best seed in the country, adapted to any climate and to any of the wheat growing soils. It should be extensively introduced into this county.

The White Blue Stem has been cultivated in Virginia for a number of years, and is esteemed one of their most productive varieties. Chaff white, head bald, berry white, weight 64 lbs. the bushel; bran thin, flour of superior quality; formerly it was a red wheat, now it is white, straw fair size, producing well. It is already somewhat cultivated in this State, and is considered a very good variety, resisting the rust. These varieties, together with some others, will unquestionably soon displace entirely the Hutchinson and Soule's varieties, which are still cultivated to some extent in this county.

The Black Sea, the Siberian and Italian are the varieties of Spring wheat mostly cultivated. As Winter wheat is chiefly cultivated in this State, and is preferred in the market, the culture of Spring wheat is but little attended to.

The quantity of water contained in flour is one of the principal causes of its souring and injuring. When this is expelled, it will keep in any climate and for a great length of time. The invention patented by J. R. Stafford, in 1847, is considered the best method of expelling the water. By his apparatus 16 or 17 lbs. of water are expelled from each barrel of flour. This reduces the proportion of water to 4 or 5 per cent., an amount too small to be productive of injury.

As a large amount of flour is annually manufactured in this county for export, and as the demand for flour is increasing in California, when none can be sent from the United States to advantage, unless the water is first expelled, it would seem to be for the interest of the Millers to avail themselves of Stafford's patent, a full description of which can be found in the report of the Patent Office.

If wheat is sowed upon heavy clay soils inclining to wet, to get rid of an excess of moisture, water furrows must be made and cleaned out late in the fall and early in the spring. These water furrows are generally made on a wheat field in the timbered land. But as a sandy

soil is the prevailing one in this county, water furrows are not necessary, and the roller be more generally used to render the soil more compact. Gypsum, when sowed upon wheat fields seeded to clover, imparts but little beneficial effect to wheat; salt, however, at the rate of one barrel the acre, is highly recommended as a top dressing. This, applied to wheat in times of severe drouth, owing to its great power to absorb moisture, especially on our sandy soils, will be found highly beneficial. It is a good preventive of the Hessian fly, and a fertilizing manure, applied in suitable quantities. Lime and charcoal, in equal proportions, are good fertilizers, and highly useful in preventing the rust. Rust affects the straw of wheat while the grain is forming, before it is fully ripe. It is generally seen on the straw in hot, showry, mucky weather, succeeded by a hot sun, without a free circulation of air or mnch wind stirring. There is no remedy but to cut the grain at once. As a general rule grain should be cut immediately after the lowest part of the stalk becomes yellow, while the grain is in the dough state, and easily compressible between the thumb and finger. Experiments have shown that wheat cut thus early, yields more in measure and weight, and makes a larger quantity of sweet white flour. The benefits of early cutting applies to all kinds of wheat, except that wanted for seed, especially to those kinds liable to shell and be affected by the rust.

To raise good wheat, requires a soil originally adapted to its culture, or made so by artificial means. A good wheat soil is a deep loam, inclining to clay, with a dry sub-soil; also a sandy calcareous or gravelly loam. All soils, containing a suitable proportion of silex, clay and lime, are regarded as the strongest and best wheat soils. The oak-opening soil of this county is well adapted to the culture of wheat, and its fertility should be preserved by a judicious rotation of crops, and the repeated application of manure.

Usually in this State, wheat is the first crop upon land when first broke up. In the spring following the wheat harvest, if the entire stubble is not required for corn, a portion of it can be sowed to oats, barley, peas, planted to potatoes, beans, and the various roots. Hoed crops are to be preferred as preceding wheat; all of which can be harvested in time to again sow the field to wheat the same season. It should then be seeded to clover, either in the fall, at the time of

harrowing in the wheat, or, as is more usually the case, early in the spring, when the ground is soft, wet and porous. Eight or ten lbs., or six quarts of clover to the acre, are sufficient. The seed should invariably be soaked in brine and thoroughly coated with plaster before sowing. The roller ought to follow the sowing, so as to press into the earth the clover seeds. Soon after the middle of April, or the first day of May, one bushel of plaster the acre ought to be sowed, whether the clover seed is up or not; if not up, the plaster will help bring it up. The advantages of sowing gypsum early in the spring, is that it may have the benefit of the spring rains, as it requires about 460 times its own weight of water to dissolve it.

The field now seeded to clover can be mowed for two years, being careful to sow plaster on it each spring, at the rate of one bushel the acre. Generally two crops of clover each year can be cut to advantage, the last crop for seed, if desired. The better way is, after cutting one crop the second year, to pasture it, and plow it up the last of August to the depth of six or seven inches, for wheat.

Naked fallows, or the system of plowing a clover lay two or three times before sowing to wheat, exposing for the greater part of summer a naked surface to the atmosphere, is not generally pursued at the present day, in good husbandry, unless it be for the purpose of eradicating foul substances from the soil. Some plow a clover lay just before sowing, and sow the seed on the furrow, thoroughly dragging in the seed. The better method, however, is thought to be, to plow the clover lay 15 or 20 days before sowing, turning on our sandy soils a flat furrow, and drag in the field once or twice before sowing, as it more thoroughly pulverizes the soil and makes it more mellow. Then either harrow or cultivate the seed in with a small cultivator plow, and follow with the roller. Whether the clover should be pastured after mowing, or permitted to obtain a luxuriant growth to turn under, is somewhat a disputed question, each having its advocates. If the clover is permitted to grow for the purpose of turning under, it should be suffered to become ripe, so as to diminish the acid gases arising from its decay and fermentation; the pasturing system is preferred by us as affording not only a large quantity of foood for stock, whose manure, left on the field, possesses as fertilizing properties as the leaves and stems of the clover. It is the roots of the clo-

ver which tend to enrich the land and render it light and porous, peculiarly well adapting it to the culture of wheat.

As a general rule, wheat should not succeed wheat, or the other small grains. It thrives the best on new breaking, or after corn, peas, beans, the roots, and all hoed crops, and especially does well on a rich clover lay. It is not good policy to apply directly to the wheat crop a large quantity of long unfermented manure. The soil should previously be enriched by plowing under this kind of manure for corn or other crops, which immediately precede the wheat crop. Short, partially fermented manure, marl, leached ashes, air-slaked lime, pulverized charcoal mixed with muck, may all or either of them be incorporated to great advantage with our sandy soils for the wheat crop, by dragging them into the soil previous to sowing the wheat.

Harvesting is usually commenced in this county from the 5th to the 10th of July. The grain is as yet cut with the cradle; but probably ere long the reaping machine will be introduced. The threshing machine with the separator soon follows; the wheat is sold at the market price, which ought always to be at least 75 cents the bushel to reward the farmer for his labor. Being converted into flour, the greater proportion of it is delivered for consumption in the eastern markets before the close of navigation. The straw should be well stacked and carefully husbanded, as affording a very good fodder for cattle, and adding materially to the manure heap, the farmer's best capital—more precious than Califorinia gold dust.

Rye.—There are only two varieties of this grain—summer and winter. It is not generally cultivated in this county or State. Its cultivation is similar to that of wheat. Neither strong argilaceous or calcareous soils are the most favorable for rye. It flourishes best on rich sandy loams, though it grows freely on light sands and gravels, which will not produce good crops of wheat, barley or oats. Our light sandy oak opening soils is the best of all others for this crop. Winter rye may be sown from the 1st of September to the 1st of October. Five pecks to one bushel and a half, or about the same quantity of seed to the acre as of wheat, is required. Rye is frequently sowed for soiling and for pasturing. It may then be sowed in August, and affords a good fall and spring pasture for stock, particularly for sheep about lambing time, before grass usual starts. All

who have flocks of sheep should not be without their rye pastures.

Barley.—This is a spring and winter grain; but the summer is the only kind cultivated with us. There are six varieties, all originating from the same source. The two and six rowed are the leading varieties. The former is generally preferred, from its superior fullness and freedom from smut.

Loudon says in choosing seed, "the best is that which is free from blackness at the tail, and is of a pale lively yellow, intermixed with a bright whiteish cast; if the rind be a little shriveled, so much the better, as it indicates thin skin. The husk of thick rinded barley is too stiff to shrink, and will lie smooth and hollow, even when the flour is shrunk within. The necessity of a change of seed from time to time, for that grown in a different soil, is in no instance more evident than in this grain, which otherwise becomes coarse every successive year. But in this, as in all other grains, the utmost care should be taken that the seed is full bodied.

Barley succeeds well on a lighter soil than is required for wheat, but requires a richer soil than rye. A mellow rich loam, containing a little more sand than clay, moist, without inclining to wet land, is the best suited for this crop. It succeeds the best on clover lays or after hoed crops. The ground should be made mellow and thoroughly harrowed in the spring. The seed can be cultivated in with the cultivator plow, then harrowed and rolled. Sowing as early in the spring as all danger from frost is passed, using about two bushels of seed to the acre. The harvesting of barley must be done at the proper time; if cut too early, before fully matured, it will shrivel; and if cut too late, owing to its liability to shell, it will waste. Barley with us is either sold to the brewers, or ground and used in fattening pork. The average yield per acre with us is about 30 bushels. It is one of the best spring grains with which to seed land with grasses.

Oats.—Loudon mentions nine distinct varieties, and there are many sub-varieties, favorites in their particular regions.

The White oat; the Black oat; the Red Oat; the Poland; the Friezland or Dutch oat; the Potatoe oat; the Georgian; the Siberian or Tartarian: the Imperial; the Hopetown; the Dyock; the Skinless, are the most known varieties.

The Black oat is adapted to poor soils. The Red oat to a late climate. The Poland oat stands the drought the best, and requring a warm soil, is perhaps the best adapted to our oak opening soil of all others. The Dutch oat is likewise a good variety. The Potatoe and Georgian are well adapted to our marsh soil, when drained, as they require a rich moist soil.

Oats succeed well on a greater variety of soils than any other of the cereal grains, and can be raised by using the proper kind of seed, whether the soil is wet or dry, rich or poor, sandy or clayey; but the largest crops are obtained on rich moist alluvial soils with a favorable season. The Genesee Flats have been known to produce 100 bushels the acre, whereas the average yield with us is from 30 to 40 bushels the acre. It is believed, however, that many of our marshes, when suitably drained, can be made to nearly equal the Genesee Flats.

Oats, like all other ceral grains, succeed the best on grass lays and after hard crops. They receive less injury than any of the other grains from the immediate application of unfermented manures. As the oat field is frequently seeded with clover, the application of plaster for the sake of the clover indirectly benefits the oat crop. About 2½ bushels of seed the acre is recommended, and the sowing may be done from the middle of April to the first of June. Early sowing is generally the best. The greatest drawback with this crop is the drought. A top dressing of salt at the rate of one barrel the acre has been found highly beneficial; but this will be considered too expensive for this region. Leached ashes are likewise beneficial to the oat crop. Oats are not a remunerating crop, and their culture is not extensiuely recommended.

Buckwheat.—This crop grows luxuriantly on sandy soils, like our oak openings. Clover lays on sandy loams, well plowed and harrowed, are its favorite soil. It can be sowed from the first of May to the middle of August, and for the purpose of turning under, two crops in one season can be produced. It is sown broadcast at the rate of three to six pecks the acre. One bushel is recommended. The straw well cured is eagerly devoured by sheep, and they thrive well on it.

Peas.—This crop is not generally cultivated in this county, as a

farm crop; but the character of the soil, as they flourish well on a good wheat soil, will admit of their extensive culture. They are very valuable as food for swine, and when cultivated should have a clean fallow or a fresh sod well harrowed. A clover lay plowed early in the spring will produce a crop of peas, which can be harvested in time to be sowed to wheat, leaving the soil in fine condition for this valuable crop. Peas require to be sowed broadcast, early, at the rate of two to three bushels the acre, and thoroughly dragged or cultivated in with the cultivater plow and rolled, so as to leave the ground smooth, to facilitate the harvesting, which is performed either with the scythe or horse rake. To destroy the worms in the seed peas, pour boiling water on them, stir them a short time, and drain off the water. The germination of the seed is increased by steeping and rolling it in plaster. The marrowfat is the kind preferred for field culture.

Beans.—They prefer a dry quick soil, like that of our oak openings, and will succeed on a poor soil better than most other crops. They are generally planted in hills two feet apart, after there is no danger from frost. They are sometimes sowed broad-cast and in drills; but the culture in hills is most usual, leaving about five beans to a hill. For field culture the small and large white bean, and the white China dwarf with a red eye, are generally preferred. When ripe, they are pulled and thrown into heaps, so as to receive the leas, injury from frost, and considerable care is required to secure them in wet weather. Many prefer to stack them around a pole to spreading them in a barn. Sheep are fond of them, and for human food, they are quoted in market from 75 cents to $1,25 per bushel. With care from 20 to 30 bushels the acre is the average yield.

Hops.—They are but little cultivated in this county. They flourish best on new strong soil. Our soil and climate, owing to the lateness of our frosts, are peculiarly well adapted to their culture. The ground is fitted the same as for corn, and marked out six feet apart each way, and planted at the intersection of the furrows with 6 plants within a compass of one foot, covered five inches deep. Each root should be 6 or 8 inches long, containing two or more eyes, one to form the root, and the other the vine. The first season the interval of the ground should be planted to corn or potatoes, and the weeds

kept subdued. The next spirng, two or three poles, 24 feet long, should be firmly stuck with an iron bar, about each hill. When the plants have run to the length of three or four feet, train them around the poles in the direction of the sun's course, and fasten them with woolen yarn below the second or third set of leaves, when there is sufficient strength of time to sustain themselves. Constant attention is necessary in the spring to train the new shoots. The gathering of the hops becomes necessary when the lowest leaves change color, and a strong scent is emitted from the hops. This is in September. The vines are cut at the surface of the ground, the poles pulled out and the hops picked off into boxes and taken to the kiln to dry, when a large quantity is raised. The manner of constructing the kiln is omitted. After the hops are carefully cured, they are packed in bags of 250 lbs. each, and forward to market.

After gathering the hops in the fall, if the ground is not sufficiently rich, the roots should be hilled and covered with manure and ashes, and all the vines should be removed. In the spring the surface is scraped off the hill and additional compost added, and the ground is plowed between the rows so as to destroy the weeds. All the running roots are laid bare and cut with a knife within two or three inches of the main roots, and the latter trimmed, if spreading too far. Experience is required in raising hops to advantage, the same as for other crops.

Flax.—This is a very exhausting crop, and to avoid the necessity of weeding it, a rich virgin soil is best adapted to its culture. A soil sufficiently rich to produce good wheat will produce flax. Fresh barnyard manures should never be applied directly to this crop, but the soil enriched with manure for the clover lay or hoed crops preceding the sowing of flax. Half a bushel is sufficient the acre, when required solely for seed, but one and a half to two bushels when reqnired for the fibre. Salt, ashes, and particularly, plaster, are the best manures for flax, sowed broadcast on it just after it is up. If the fibre is wanted for fine linens, the flax must be pulled when in flower; but if only required for seed, it should be permitted to remain standing till the first seeds are ripe. It is frequently raised both for seed and the fibre for coarse linens, and it can then be permitted to reman till the seeds are well formed and nearly ripe, so that they will

mature and ripen after the flax is pulled. The fibre, after removing the seed, is either dew-rotted or water-rotted—the latter is the best method. Flax is but little raised in this county, and that little chiefly for the seed. Cotton is raised so much cheaper and so much more extensively, that it has almost displaced the use of linen in the United States, except for a few fine articles. The Irish and Flemings can raise and manufacture what few linens are needed in the United States, cheaper than the article can be raised by us. Still, for the sake of linseed oil, it is desirable that a small quantity of flax should be raised in the country, at least sufficient for seed to satisfy the demand of oil mills. Our dry marshes are well adapted to the raising of flax.

Indian corn.—The intrinsic value of this crop, regarded as an article of food for stock and for individuals, equals, if it does not excel, any other single crop. The varieties of corn chiefly cultivated in this county, and esteemed the best, are the yellow and white dent or gourd seed; the yellow and white flint. These varieties contain more or less rows, varying generally from 8 to 24, having either a white or red cob. The dent is generally raised on a prairie, and the richest kind of burr oak soil, but not exclusively. The flint is the usual variety raised on the oak openings. The 12 rowed Dutton yellow flint is esteemed a good variety, ripening early. The red cob in all the varieties is generally considered the best. The yellow corn is found by chemical analysis to contain more oil or fatty matter than the white, and as yielding a stronger or richer food; but its flavor, by those not accustomed to its use, is not relished as well as that of the white. The latter is in most demand for exportation—the English and Irish preferring this variety of meal. The tendency of the different varieties to mix and hybridize when planted in the same field, is remarkably great, frequently producing new varieties. The best kind for seed of any variety should always be saved, and this can best be selected, when the corn is husked, by leaving a few of the husks on the largest and best ears, braiding them together and hanging them up in some dry place, till wanted for seed.

Judge Buel's famous steep for seed corn is, to soak the seed in warm water, in which is dissolved a few ounces of saltpetre, for about 12 hours or over night, then for one peck of seed thus soaked,

half pint of tar is diluted in a quart of hot water, and added to the steep; the mass is well stirred, so that the kernels may be well coated with tar, and then rolled in plaster. The benefit of this steep is to protect the seed against the depredation of birds and squirrels, and to prevent its rotting when the planting is succeeded by cold wet weather. We believe in always soaking seed corn in warm solution of saltpetre over night, intended for planting the next day, and thoroughly coating the kernels by rolling them in plaster, ashes, or air-slacked lime, whether the tar is added or not.

The practice of dunging the seed in the hill with stable or barn-yard manure, is always attended with a good deal of difficulty, and sometimes with injurious effects, causing the seed to rot in the hill. A better compost, from the ease and cleanliness with which it can be used when planting, and being at the same time more durable and fertilizing, attracting moisture and heat to the seed, causing it to germinate, and imparting vigor to the roots and the after growth of the entire stalk, enabling the ear to fill well, is a mixture of equal parts of *salt plaster, air-slacked lime, ashes*, pulverized *charcoal*, and *bone-dust;* or an equal mixture of as many of the ingredients as can be conveniently obtained; adding a half gill, or a good sized handful of it to the hill, before covering the seed. One bushel each on six bushels of the mixture is amply sufficient for an acre. Six bushels contain 3,072½ gills, and an acre contains 2,722 hills, 4 feet apart each way, or 3,555 hills 3½ feet apart each way, or 4,840 hills 3 feet apart each way. These several distances are chiefly, if not always, adopted in planting corn in hills in this State. The Beden variety of corn, cultivated in Maryland to considerable extent, producing from 4 to 8 ears on each stalk, it is presumed, would ripen sufficiently early in our climate, although it does not succeed as well in the State of New York as the Dutton. This variety is planted 5 feet apart each way, leaving only two stalks in each hill; yet from the many ears grown on each stalk, the yield is reported in agricultural works to be sometimes as great as 120 bushels the acre. If this variety should be introduced, the prairie or burr oak soil is the best adapted to its culture, as it requires a very deep, rich, sandy loam. We, however, do not hear as much said about this variety of corn as formerly. These enormous yields are "like angel's visits, few and far between."

All the varieties of dent, when cultivated, are the best adapted to the prairie or burr oak soil; and owing to the size of its roots, of its stalks, and as it requires a good deal of room to range for food to enable it to produce large ears, well filled, it should not be planted less than four feet apart each way, leaving three stalks to a hill. The yellow and white flint having smaller roots and stalks, and requiring less range for food, may be planted in hills three and a half feet apart each way, leaving three stalks to a hill. Corn, if planted too thick, is likely to produce more stalks—more fodder—than sound ears well filled with kernels. The stalks of the flint variety of corn make altogether the best fodder; but the dent corn is generally preferred to feed to horses in the ear.

In feeding stock there is a great saving in having the corn ground in the ear—otherwise the nutriment contained in the cob is wasted.

It is usual, in dropping corn, to plant about five kernels to a hill, and at the first hoeing to reduce the number of spears to three. The usual method of planting is with the hoe, dropping the seed from a small bag tied around the person, and covering it with the hoe about two inches deep, slightly pressing the hill with the back of the hoe. One or two pumpkin seeds are usually dropped in every fourth hill, as pumpkins constitute an excellent food for cattle in the fall, when feed is short. Planting should never be done when the ground is very wet, as the earth bakes and prevents the seed from coming up freely. The rows should be planted north and south, as in this way the plants receive more benefit from the sun.

Some of the great crops published, are usually planted in drills. If the corn is planted in drills, the rows are recommended to be three feet apart, and the stalks in the rows one foot apart; or if two stalks are left standing together, eighteen inches apart.

Planting machines have been recently invented, which greatly diminish the labor, and perform the operation more perfectly than the hand. A horse and boy can furrow and drop the seed, cover and roll from eight to twelve acres per day, with entire uniformity as to distance, depth of covering, and quantity of seed in each hill.

A rich sandy soil, either rich in vegetable mould or highly manured, is the best adapted for corn. It does not succeed very well on stiff, hard, wet clay soils. The soils, in order to produce corn, re-

quire draining, and to be made lighter, more porous and permeable to heat and air by a a suitable mixture of lime and charcoal. The soil of this county is well adapted to corn, particularly to the flint variety. Indian corn is a gross feeder, and requires a very rich soil to yield a large or even a profitable crop.

As the first crop usually raised in the west on a virgin soil or new broke up land is winter wheat, the wheat stubble may to good advantage be planted in the spring to corn, and if on a prairie or burr-oak soil, it will probably be found sufficiently rich, and need no manure, at least all that would be profitable would be scattering a little plaster or ashes about the hills just after the corn is up, and has been dragged or cultivated between the rows. The wheat stubble of the white oak openings should receive an application of ten to twenty loads of unfermented manure the acre, spread upon the land in the spring, and immediately plowed under and harrowed lengthwise of the furrows, and if the ground is a light sandy loam, rolled and marked for the distance of the rows. Some prefer spreading the manure on the ground after it is plowed, and harrowing it in, following with the roller, believing that while the *gases* of the manure, undergoing fermentation, ascend, the *juices* descend. There can be but little doubt but that the immediate crop receives more benefit from the manure when dragged under, than when plowed, if the season is wet; but as our seasons are generally dry, and as the manure can be more easily spread before plowing, and composts subsequently used for manuring in the hill, the former methods are generally the best. Let long *unfermented* manure be plowed under, and short fermented manure, marl, or muck, be harrowed under. If the land is so poor as to require manuring, the crop can be greatly increased by making use of the compost for the hills at the time of planting, and subsequently using plaster or ashes, or both, as a top dressing, after the first hoeing, or after the drag or cultivator has passed through the rows the first time. If the corn is suffering severely from the drouth, a top dressing of salt is equally as good, if not better than plaster, as salt more powerfully attracts moisture and sooner decomposes, and is a good fertilizer in suitable quantities.

Wheat stubbles after the first crop, on our virgin soils, are free from weeds and all foul substances, and not yet exhausted of the

natural humus of the soil, are fertile and well adapted to produce a profitable corn crop.

A clover lay two years old or more, is an excellent condition of the soil for this crop. If the soil is a sandy loam, the furrows should be turned over flat in the spring, after receiving a dressing of unfermented barnyard manure, to be plowed under. If the soil is light, the plowing and harrowing should immediately precede the planting, as the ground should then be light, just stirred, and made susceptible of receiving heat and air at the time of planting, which should be as early as all danger from spring frosts is passed. Planting can usually be performed in this county from the 1st to the 20th of May. The Indian rule was to plant when the oak leaves were as large as the ears of the squirrel. If the soil is an old grass lay, with a tough sod, or a stiff clay loam, it should be plowed in the fall; and if a clay loam inclining to wet, the furrows should be lapped, covering the manure spread in the fall. In the spring the ground should be harrowed just before planting. As soon as the corn is up four inches, discernable over the field, let a light corn harrow or the cultivator pass between the rows each way, and be followed by the hoe, gathering a little fresh earth about the roots of the plants, extirpating all the weeds, and reducing the spears to three in a hill. If weeds show themselves, or the crop is suffering from the drouth, the best remedy is to stir the earth with the frequent use of the cultivator, exposing fresh earth to the surface. Usually, the cultivator is the second time passed between the rows each way, and the second time followed by the hoe, gathering fresh earth from between the rows about the hill, in a broad flat surface, taking care not to earth up the hill exceeding two inches. Corn does not repuire hilling up like potatoes.

The corn harrow and the cultivator are considered better than the plow, as less likely to cut and injure the roots of the plant, and as being better adapted for pulverizing the soil and leaving it permeable to air, heat and moisture, and less likely to hill up the plants. If the plow is used, slight furrows should be made with it.

To produce a large yield of Indian corn, aside from the favorableness of the season and the richness of the soil arising from its natural or artificial adaptation, the weeds must be kept subdued, and the ground thoroughly and often stirred, keeping it loose and mellow.

As soon as the corn is glazed, it should be cut up near the roots. This can be done frequently as early as the first of September, owing to the mildness of the climate. For this purpose some use a short scythe, but the best instrument is the common hoe, ground sufficiently sharp, with a short handle about two and a half feet long. To cut four rows at a time, placing eight hills together for a bundle; if in fair weather, let it lie a day or two before binding. The bundle can be bound with grass usually growing about the corner of the fences or near the cornfield, or wet straw can be used instead of grass. The bundles, if it is intended to put the cornfield into wheat the same fall, as is the usual and an excellent custom, can be drawn off with a sled or a waggon, and set up in stooks, seven bundles to a stook, three bundles in a row, and two bundles each side of the row, thus, · ⁝ · ⁝ · tying the stook at the top with a corn stalk, and with another around the centre. When stooked in the field, the bundles are set up around the hills left standing for this purpose, as many bundles as convenient without tying, the standing hill serving as a supporter. The great advantage of this method of cutting up corn, is that the field may be cleared in time for a crop of wheat, and as being the most profitable and best way to secure fodder. The corn, if glazed, should be cut up and secured before any frost has made its appearance to injure the stalks. The corn secures, ripens, and fills out much better when cut up than when the stalks are topped according to the old method, which it is to be regretted should still be pursued by a few. The ear continues to receive nourishment from the flow of sap when cut up by the roots, but does not when the stalks are topped above the ear. About the first of October, when the labor of putting in wheat is fully ended, the corn in the stooks is sufficiently matured to be fit for husking. Although there is a machine for this purpose, yet with us it is done by hand. Our mild autumnal weather, especially during the Indian summer, which lasts frequently eight weeks, affords ample time to husk and secure the ears of corn in the crib, or in some dry place, where it can receive a free access of air, to more perfectly dry and harden. The corn is husked, or should be, without unbinding the bundles. The stalks, together with the loose husks, should be raked up and stacked, leaving the buts out; or they should be at once removed to the

barn, if in good condition, and there is ample store room. They make an excellent fall and winter fodder, most all kinds of stock preferring them, if well cured, to straw, and as a change, even to hay.

A convenient and cheap method to make a corn crib is to place upon the ground two sticks of unhewed timber, eight or twelve inches in diameter, and about 36 feet long, five feet apart on the ground. Make six mortices with an axe, in each stick, equally distant, fasten the sticks together with four inch sills, using scantling, or pieces of rails with a smooth surface, make a floor of planks or boards, tight, so that the corn will not waste by shelling, then make six more mortices for studs, in each stick, let the studs enter the mortices with a slight slant outwards, so that the crib at the top will be wider than at the bottom, having the studs in one of the sticks of timber about one foot longer than in the other, so as to give a slant to the roof, that will better shed rain.

The studs can be shaved around at the top, so as to be fastened together with string pieces; a two inch auger hole through the end of each string piece will admit the studs and hold them together. Board up the sides and ends of the crib with four or six inch boards on the inside of the studs, leaving a space of one inch between each board, so as to admit a free circulation of air. One end of the crib can be boarded up with pletes, so as to be withdrawn to admit access to the crib.

Common boards can be used for the roof well lapped so as to shed rain. Such a crib can be built in two or three days by one man, with no other tools than an axe, auger, saw, drawing-shave and hammer. If 36 feet long, 8 feet high, and the average width 6 feet, it will contain 1382 bushels of ears of corn. A convenient rule to ascertain very nearly the amount of ears of corn in the crib, is to multiply the length, breadth and height of the corn heap together, and this product by 8, cutting off the right hand figure for a decimal, and the other figures will give the product in bushels of ears.

Corn is sometimes sowed broad-cast, at the rate of three or four bushels the acre, for fodder. The ground should be rich, and the seed sowed about the first of June. The crop can be cut in six or eight weeks, and secured by thoroughly drying. Six tons or more of fodder is thus obtained the acre, superior to the best of clover or

timothy hay, and as many as thirteen and a half tons of dry fodder has been obtained from one acre.

The green crop is sometimes turned under instead of buckwheat, to enrich the soil for an after crop; but, as it takes good land in the first instance, to produce a good crop of corn fodder, this is less resorted to for a green crop, than buckwheat.

The soil of the oak openings of the county can be made to produce large crops of Indian corn, by incorporating with it about 12 loads of marl and 20 loads of long unfermented manure the acre. The manure should be plowed under preceding each corn crop, but the marl will last several years. In this way the continual fertility of the soil can be preserved, resorting to a judicious rotation of crops.

Deep plowing, a thorough pulverization of the soil, without exposing the manure to the surface, keeping the ground mellow, frequently stirring it, and extirpating all the weeds by the harrow or cultivator, or both, planting the corn in hills 3½ feet apart each way, leaving three stalks to a hill, steeping the seed 12 hours in warm solution of saltpetre, rolling the seed in plaster, manuring in the hill with a compost of equal parts of salt, plaster, air-slacked lime, ashes, adding bone-dust and charcoal, if to be had; about a half gill to the hill, using as a top dressing about the hills. If the corn is suffering from the drought, or would seem to admit of further nourishment, a little ashes, plaster, or salt, or a mixture of the three ingredients, are the chief requisites to produce good crops of corn, and cannot fail if the ground is in good condition, the seed sound, and the season favorable.

The importance of the wheat and corn crops, will, it is hoped, justify the details of our remarks in relation to their culture.

Potatoes.—There are two distinct kinds—the Irish and the sweet potatoes. The former is chiefly cultivated with us. The best known varieties of the Irish potatoes, are Kidneys or Foxites, Early Kidney, Meshannock or Mercer, Pinkeyes, St. Helena, Sault St. Marie, Mackinaw, Blue, Orange, Rohan, Merinoes, Long Reds, White Blue Nose, Silver Lake, Peach Blow, English Whites, Scotch Greys, Sardinians, Bakewells and Dooryards.

New varieties are produced from plants obtained from sowing the

seed contained in the potatoe ball. When different varieties are planted near each other, the blossoms of each sometimes mix and cross, so that the seed of the ball, when sowed, may possibly produce an improved variety, partaking of the qualities of each. Good sized potatoes are not obtained from the seed of the ball till the second or third year. To obtain potatoes from the seed in the ball, the plant may be forced in a hot bed and transplanted.

The soil best adapted to the culture of potatoes, is a deep rich sandy loam. New broke up land, or a fresh clover or grass lay, made rich by incorporating with the soil, calcarous marl and unfermented manure, mixed with the muck that can be easily obtained from the marshes, will produce a good crop of potatoes.

The land designed for potatoes, unless a very tough old grass lay should be plowed early in the spring, turning under a good dressing of unfermented manure, harrowed till made mellow, and furrows then marked out with a plow drawn by one horse, to the depth of four inches, and 2½ to 3 feet apart. The planting is usually done across the furrows, if marked only one way, by dropping two halves of a potatoe in each furrow; the seed is either covered by the hoe or plow in hills about three feet apart, each way. There is a saving of seed by cutting the potatoes, and it is believed to be equally as good, if not better than planting whole potatoes. From the liability of potatoes to rot, which by some is supposed to be increased by fermentation of long manure, none should be placed in the hill; but equal parts of the same compost recommended for corn, can, to great advantage, be added to the hill before covering, greatly increasing the yield, and in a measure lessening the danger from disease.

As soon as the potatoes are up so as to discern the rows, let the cultivator or a light plow, drawn by one horse, pass between the rows, as near the hills as possible, subduing the weeds, stirring the earth, making it light and mellow, and if a little earth should happen to be thrown on to the young plants, it will do no injury. Plaster or ashes are a very useful top dressing for the young plants, scattered about the hills. After a few days the cultivator or plough should again pass between the rows, followed by the hoe, hauling the earth about each plant so as to have a flat broad hill, rather concave than convex, so as to retain moisture. A certain quantity of moisture be-

ing absolutely necessary for a large yield of potatoes; but an excess is supposed to be one of the causes of the rot. After the first hoeing, the weeds should be kept subdued by the cultivator or plow, and if a second hoeing is deemed necessary, it should be done before the tops begin to blossom; after this the potatoes should not be touched, but permitted to ripen. As soon as the tops are dead, or nearly so, the potatoes are thrown out of the hill by the double mouldboard plow, the potatoe hook, or as is more frequently the custom, harvested by pulling the tops with the hands and digging the tubers with a hoe. On account of the danger to be apprehended from the rot, many let their potatoes remain on the ground some 24 hours, to dry before being picked up. They are stored either in a cool cellar or in pits in the field.

Smoking potatoes is one of the numerous remedies recommended to prevent rot. They are placed in the smoke-house and thoroughly smoked. This process gradually dries them, and is no doubt beneficial, but it is attended with considerable trouble.

It is believed layers of pulverized charcoal sprinkled over the potatoes, when placed in the cellars or pits, will materially lessen the danger to be apprehended from the rot. The absorbient properties of charcoal are very great. It removes fœtid smells from water, meats and manures, clarifies juices, and absorbs from the air and other media gasses. Salt is likewise recommended to be sprinkled over potatoes, but notwithstanding the alkali of this material is moisture, it is believed, would be less beneficial than the use of charcoal.

The Commissioner of the Patent Office, in his report for 1848, has classified the various theories of philosophers and agricultural chemists, both in Europe and America, concerning the potato disease; and concludes by saying that the causes of the disease, as well as the remedies, are yet a subject of great difference of opinion, and that, while the remedies recommended as radical cures, have failed, many of them have proved as palliatives, and suggests the propriety of cultivating potatoes in dry, loose, warm soils, avoiding immediate, fresh animal manure, carefully loosening and heaping up the the hill of the plants, the digging of the tubers in dry weather, drying off the moisture, and preserving them in dry, airy cellars, or in well protected pits.

Sweet Potatoes.—As a luxury for the table, a sufficient quantity can, by every farmer, be cultivated with a little extra trouble. To preserve the slips through the winter, intended for seed in the spring, a careful exclusion from air and light, frost and moisture, is very essential. This is done by placing the slips in layers of sand thoroughly dried. Early in the spring the slips are placed in a hot-bed, two or three inches apart, and covered to the depth of two or three inches, with a rich loam. After the sprouting of the slips, the plants should be carefully taken from the hot-bed, by placing the hand over the potatato slip, so as to prevent it from leaving the hot-bed, and taking hold of the sprout with the other hand, as near the potato slip as possible, and pull it off. By leaving the slip in the hot-bed, more sprouts can be obtained in eight or ten days, and the sprout planted without the slip is more likely to be free from small stringy potatoes. The ground for transplanting should be a deep, rich, sandy loam, plowed deep into ridges and made mellow at night, or just before a rain, following the same rule as is observed in transplanting cabbage plants; the sprouts, if in ridges, should be set out eight or twelve inches apart, the ridges being three feet apart. If in hills, one or two sprouts, three inches apart, making a large hill with a hollow surface, so as to hold a half pint of water, three to four feet apart each way; as the vines spread and run, requiring considerable room for the sun and moisture. The after culture is very similar to that required for the tomato plant and other potatoes; frequent hoeing, by hauling the dirt about the plant without injuring the vines. As soon as the frost kills the vines, the tubers may dug.

As mixed husbandry is almost universally pursued by the farmers of this county, the food required for the stock of the farm can be greatly increased and the fertility of the soil for the leading crops of wheat and corn preserved, by devoting more attention to the culture of *Roots.* Turnips, beets, carrots and parsneps should, to a greater or less extent, be cultivated as farm crops. No soil excels that of burr oak openings for root culture.

The Flat English Turnip.—Turnips flourish best on a sandy loam on new land, or a fresh sod. The seed is sown broadcast from the first of July to the first of August. The 20th or 25th of July is the best period with us. One pound of seed is amply sufficient for an acre. Thin sowing produces the best crop, and one pound of seed

will answer for two or three acres. The seed should be steeped for a short time in a solution of brine and rolled in plaster. As our climate admits the harvesting of wheat the first and second week in July, the wheat stubble, or so much of it as is needed, immediately after harvest can be plowed and harrowed for turnips, first receiving a supply of manure, if not sufficiently rich. The seed should be slightly harrowed or brushed in and rolled. A top dressing of plaster, ashes or lime is highly beneficial to the growth of this crop. Turnips mature even after frost, and may be regarded as the last crop of the season harvested. The nutritive properties of this turnip are less than those of the other roots; but is valuable for feeding sheep and cattle.

Sweede Turnip, or Ruta Baga—is more nutritive than the English turnip, will keep longer, and is generally preferred. It will keep till spring, and can be fed to sheep, greatly increasing the milk of the ewes for their young. Horses, cattle and sheep are very fond of them. The seed, steeped and rolled in plaster, should be sowed from the 1st to the 15th of June, at least by the 1st of July, and is best done by the drill in rows about two feet apart, and eight inches apart in the rows. The same compost recommended for corn and potatoes, is a valuable top dressing for all roots. The root-hook facilitates their digging late in the fall; the leaves are chopped off, and the roots are stored in pits or cellars for winter and spring use. They generally grow so large as to require cutting before being fed out.

Beets.—Only two varieties are cultivated for farm use; the sugar beet and the mangold wurzel; the former is much the best and should alone be cultivated. The sugar beet is more nutritive than the ruta baga. It requires a deep, rich, sandy loam. The seed is sown in drills 2½ feet apart, and from 8 to 12 inches apart in the drills, at the rate of 4 lbs. the acre, early in the spring, or as soon as the 10th of May, if the season will permit, and covered about one inch deep. The seed should be first soaked by pouring soft, scalding water on it, allowing it to cool to blood heat, and remain two days, and then rolled in plaster. The weeds should be kept subdued by the use of the cultivator and the hoe. The harvesting is done in the fall, similar to that of the ruta baga. They are more nutritive than the ruta baga, and are not excelled by any of the roots in their keeping properties. All domestic animals are fond of them, swine preferring

them to all roots except the parsnip. Aside from their value as food for stock, a good article of vinegar is made from their juice. One bushel of sugar beets, it is said, will make 5 or 6 gallons of vinegar; but if only 3 gallons are obtained, their culture is highly desirable for vinegar. The beets are washed, then grated, and the juice is pressed out of the pulp with a cheese press, or any other simple press; the liquor is poured into a barrel, and the bunghole covered wite gauze and placed in the sun for 11 or 15 days, when it turns to vinegar. When vinegar sells for twenty-five cents per gallon, then sugar beets are worth 75 cents per bushels for vinegar. From 400 to 600 bushels, and frequently more, are raised the acre. An acre of sugar beets for the manufacture of vinegar is worth at least $300. They are extensively cultivated in France for sugar; but their culture for this purpose in this country has been abandoned, as not being able to compete with the culture of the sugar cane of the South.

Carrots require a fertile sandy loam, deep plowing and a thorough pulverization of the soil. The seed is sown in drills 20 inches apart, and 6 inches apart in the drills, early in the spring, or about the 10th of May. The seed may be first prepared by incorporating with it fine mould and stirring it well together, so as to break off the fine beards of the seed. The mixture moistened with soft water, and occasionally stirred, may remain for 5 to 10 days before sowing; the seed thus prepared readily germinates. Four pounds of seed is amply sufficient for an acre. The weeds should be kept subdued and the plants clean by the use of the cultivator and hoe. They furnish an excellent food for horses and milch cows. They are generally cultivated by those who keep a large dairy. The average yield is from 400 to 1000 bushels the acre.

Parsnips—succeed well in a rich, deep soil, on either a sandy or clay loam. The seed is sown in drills 20 inches apart and 6 to 8 inches apart in the drills, at the rate of 4 lbs. the acre. Seed of the previous year's growth is to be preferred as more sure to germinate. It is sown about the 10th of May. The after culture is similar to that required for carrots. They are a very hardy plant; the frost does not injure them, and they can be left in the ground over winter and dug in the spring, as wanted for feed for cattle, sheep and swine,

the latter preferring them to any other root. They are not esteemed desirable food for horses.

In feeding roots to stock designed for fattening, as a general rule, those roots possessing the least nutritive properties, should be first fed, and followed by those, in due order, which excel in their nutritive properties. A change of roots in this manner, will enable stock to take on fat much faster than to feed exclusively with the same sort of roots.

Clover—If the farmers of this county would preserve the soil from exhaustion, from becoming barren and worthless by constant tillage, and especially desire to render it more fertile for the production of wheat, corn, the other grains, and roots, a more general resort to sowing clover seed with their grain crops must be had. It is a shame that we should have depended upon Ohio so long for this seed, when it can be as profitably raised by ourselves. Clover is valuable and a very profitable crop as a fertilizer of the soil, as food for stock, used either in pasture or meadow, and for seed. The small southern variety ripens early, and admits of two crops annually in this climate and on our sandy soils. A bushel of seed, 60 pounds, is sufficient for five acres, and can be sowed either in the fall or spring with grain crops. As winter wheat is the most extensive grain crop produced in this county, clover seed is generally sown early in the spring on the wheat field. A light snow the latter part of March enables the farmer to discern his tracks and distribute the seed more evenly than otherwise. If the sowing is followed by the roller, the seeds will be pressed into the earth, and if they are soaked in brine and rolled in plaster, they will be more likely to germinate. Gypsum, which can be purchased at Grand Rapids for four dollars per ton, should always be sown on clover fields about the middle of April, at the rate of one to two bushels the acre. Most farmers sow only one bushel; and all concur in the opinion that more than two imparts no additional benefit. The next season after seeding, the clover can be mowed and secured before the usual commencement of wheat harvest, about the 20th or 25th of June, yielding as an average crop, with the use of plaster, two tons the acre, worth $10. The after crop will mature, and if cut for seed, will yield from three to six bushels of seed the acre, worth from $3

to $5 per bushel; value of four bushels of seed, at $4 per bushel, is $16. The annual value, then, of an acre of clover for hay and seed, is about $26, aside from the fertility its roots impart to the soil, equal to two acres of wheat.

Clover-mills are advertised for sale by Allen, of New York city, from $30 to $65 each, and it is believed they are now manufactured at Ann Arbor, and sold for a reasonable price. And again let it be said, that it is entirely impossible to continue to produce wheat in this county, to any advantage, without adopting the modern system of farming, and resorting to a judicious rotation of crops, of which clover, on our sandy soils, should constitute the leading and most frequent crop in the alternation, especially if we would preserve or add to the original fertility of the soil.

Timothy or Herdsgrass.—This is the most valuable of all the varieties of grasses as an article of food for stock, but does not enrich the soil, like roots of clover, and is not as well adapted to our sandy oak openings soils, or as a rotation crop for the cereal grains. Its favorite soil is a clay loam. The usual quantity of timothy seed sown the acre on a fine mellow soil, is twelve quarts; a stiff clay soil requires nearly double the quantity of seed—at least sixteen qts. the acre. When cultivated for seed, an acre of prime grass will yield about 20 bushels, worth $1 25 to $1 50 per bushel.

Many of our marshes can be converted into valuable meadows by the use of the ditching plow and by draining. Seeded to timothy or red top, they would constitute our most valuable grass lands. The scarifying harrow employed on the surface of the marshes would facilitate the germination of the seed. Our marshes, even in their natural state, are valuable as furnishing grass before it starts on the openings, and hay for horses and cattle, but not for sheep. Without the use of the marshes, the early settlement of the county must have been greatly retarded, and attended with increased expense.

Manures should be carefully saved—instead of being permitted to ferment and waste in the barnyard, they should at least once a year be applied to such fields and crops as most require them. The importance of saving manure and judiciously applying it to the soil is of the greatest consideration in good husbandry. The quantity may be greatly increased in the barnyard by incorporating with it muck,

straw, and other substances. Manures are derived from the mineral, animal and vegetable kingdoms, and are employed to supply elements deficient in the soil, to improve its texture, to stimulate vegetation, and to supply everything essential as food for the growth and full maturity of plants.

Ashes, unleached and leached, both constitute valuable manure for our sandy soils. The large quantity of lime contained in ashes adds materially to their valuable properties. Upwards of 50 per cent of lime is found by chemical analysis, in *leached* ashes. Six bushels of unleached ashes, either alone or mized with one bushel of plaster or two loads of leached ashes, are a valuable top dressing for grass lands, per acre; but from fifteen to twenty bushels of unleached ashes, and two or three loads of leached ashes are used on an acre for grain crops.

Air-slacked Lime makes light land heavier and heavy land lighter It is equally good for sandy or clay soils, if not already sufficiently ealcarious. It is a very valuable and lasting manure, but may be considered with us too expensive to be generally used. There is already considerable lime in our soils, as evinced by their natural adaptation to wheat.

Marl.—A few marl beds exist in this county. They are either argillaceous, as when clay prevails; calcareous, when lime is the chief ingredient; or silicious, when sand and fine gravel are found in the largest proportion. Most marl beds contain a suitable proportion of all these ingredients, with an excess of lime, and are then calcareous. Argillaceous marls are the best to be incorporated with light sandy soils; calcarious and silicious marls with clay soils.

By the judicious use of these marls, the entire texture of the soil can be changed, so that every farmer can make just such an artificial soil as he pleases, adapting it to the wants of the various products. The quantity requisite for an acre, depends in every instance on the nature of the marl and the ingredients already constituting the component parts of the soil. The use of marl as a top dressing for grass lands, or harrowed under on fallows for grain and root crops, are worthy of general trial, as they will materially affect the soil for four or five years, if not for a longer period, without requiring any additional supply.

Gypsum, Salt, Charcoal and *Bone-dust,* have already been alluded to as constistuting vauluable fertilizing properties, and as forming a good compost. Many of the manures used by farmers near large cities and the sea shore, cannot be obtained by us without too much expense. We must rely chiefly upon our marls and the muck of our marshes, which, incorporated with our stable or barnyard manure, will materially add to the intrinsic value of the manure heap; and if pulverized charcoal be sprinkled over the heaps, it will prevent the escape of the gases arising from its fermentation, and still further add to the value of the manure, so essential to every farmer as to be regarded his best capital.

Rotation in Crops.—Experience in husbandry has well established the fact, that a constant succession of the same or similar crops will sooner or later exhaust the soil of its fertility; that neither grain roots nor grasses, should be continually produced on the same soil, but that a change, a rotation, is absolutely necessary to preserve the richness of the soil and to a good growth of crops. The first crop on new land is almost universally winter wheat. The wheat stubble in the next spring after harvest, as a general rule, should be used for hoed crops—corn, potatoes, beans, the roots, and peas—all of which should be harvested and removed in time to permit the field to be again sowed to wheat, and seeded to clover either in the fall at the time of sowing the wheat, or, as is more usual, in the spring. The clover field can be used for two or three years either as a meadow or pasture, or for both, and then the clover lay will furnish a good soil for wheat in the fall, or for corn, potatoes, barley, oats, or any of the roots, in the spring.

A farm intended for mixed husbandry to any extent, that is, for the production of various crops and the raising and keeping of all kinds of stock, should contain at least 160 acres. Forty acres may be retained as permanent wood land, to supply the farm with timber, and the house with fuel. Ten acres more may be marsh land or natural meadow, and the balance, 110 acres, should be arable land, under a high state of cultivation. It should be so managed by a rotation of crops, that about one half of it should be constantly seeded to clover in sandy or oak opening soil, or if any of it be a stiff clay then to timothy, and used either for meadow or pasture, or rather

both for meadow and pasture, and the other half may be used for the grains, corn, roots, &c.

Stock.—The raising of stock is essential to mixed husbandry. Improvements in the different kinds of stock have been great within a few years, and it is highly desirable to the farmers of this county to procure and start with the best breed adapted to this climate and their wants. Of the varieties of sheep, the Merino or Saxon is as profitable as any to be raised in this county, as we are situate inland, remote from all large cities, and raise sheep more for the wool, the fleece, than for the carcase. For mutton, the South Down, the Bakewell or Leicester, the Cotswold, and Lincolnshire, excel all others. A few of this breed of sheep are desirable for mutton, and as the demand for long wool increases, for worsted stuffs, bombazines and de laines, they may become profitable for their fleece.

Sheep is the leading stock raised in this county, and they tend to enrich rather than impoverish the soil. Clover lays and sheep pastures produce rich wheat fields. The sale of the wool clip in the spring, and of the wheat in the fall, is the farmer's main source for money.

The varieties of cattle are equally as numerous and as distinctly marked as the different breeds of sheep.

The *Devonshires* are invariably a deep red color. They make active cattle, good working, of medium size, and for light soils, are not excelled. The cows are good milkers, and their beef is good.

The *Herefords* are red, with a generally white belly and face, and sometimes a white stripe on the back. They are larger and heavier than the Devons, and for working cattle on heavy soils, and for heavy work. excel them, and likewise for beef cattle; but the cow is not so good for the dairy as most other breeds.

Durhams.—The full bred Durham is readily recognized by the shortness of the horns, symmetry of form, and is generally red and white, though not always so. They excel for beef cattle, but are not so highly esteemed for working cattle as the Devons and Herefords. The cows differ a good deal in their milking qualities, some of them being first rate milkers, while others are very indifferent ones.

The *Holderness or Teeswater* are an excellent breed for the dairy and for beef. For fattening readily they are unrivalled.

The *Ayreshires* are esteemed solely for the dairy, but their reputation is by many gravely questioned, contending that those imported do not excel many of our native cows for milk. The Devons and Herefords are, then, recommended for *working* cattle, the Durhams, Herefords and Holderness for *beef* cattle, and the Devons, Ayreshires and Durhams for the *dairy*. If, however, a good native milch cow is possessed, it is better to try to improve on her by breeding for the dairy than to expect to excel her breed by a foreign importation.

Swine.—The most approved varieties are the Woburn, Chinese, Berkshire, Grassland, Kenilworth, Miami White, Yorkshire White, and Leicesters. The latter are good size, white hogs, generally coarse in the bone and hair, great eaters and slow in maturing, and are not, in our opinion, deserving of the high estimation in which they are held by many. An improved breed may be, and we believe, has been obtained, by crossing with the Berkshire. The introduction of the China and Berkshire has done more to improve the breed of swine than all others. The objection to the former is the smallness of its size; the same objection does not apply to the Berkshire, though this breed does not equal the size of the large hogs of the Sciota, Miami and Wabash valleys.

Horses.—But little has as yet been done in this county towards the improvement of the breed of horses. Much remains to be accomplished. The enterprise and desire among our citizens for good horses, the uniform high price a good horse always commands, either at home or for the eastern market, must soon be the means of improving and increasing the breed of this valuable animal.

The average period of gestation of animals is, for the mare, 11 months, or 347 days—for the cow, 9 months and 9 days, or 284 days; for the ewe, 5 months, or 154 days—for the sow, 4 months, or 115 days.

Poultry.—Fowl-breeding is, at the present time, attracting considerable attention, especielly in the vicinity of large cities, and is worthy the notice of every farmer for his own domestic use. Large numbers of fowls kept together do not thrive as well, and are less profitable, than a small number. About 50 brooding hens and a proportionable number of cocks, is a sufficient number for each far-

mer to keep. This number, with a little care, will raise from one to two hundred chickens annually, and produce all the eggs required for the family's use. The Dorkings and the Polands are the most celebrated breeds. The former are a large fowl, white or speckled, and noted as having five toes. The latter have top-knots or tufts on their heads, are great layers, but poor setters, seldom setting. There are, however, infinite varieties of domestic fowls, of every shade and color, of mixed and cross breeds, to be found in every poultry-yard that are excellent layers and setters, and in changing a known good breed for a foreign breed, however highly recommended, the farmer might not better himself.

With a few remarks on fruit culture, as no farm can be considered complete in its husbandry without the appendage of the orchard, it is then believed the object of this essay will have been accomplished, imperfectly it is true; but the limits prescribed to an essay of so general character, will not admit of that detail required in treating of a particular branch of agriculture. It is highly necessary that farmers should more generally set out fruit trees, if in a few years they desire to cease being dependent on other States for fruit. The large amount annually paid to other States for fruit, would more than defray the expense of setting out orchards amply sufficient to furnish in a few years all the fruit required for the wants of our citizens. Our soil and climate are favorably adapted to the culture of fruit. If occasionally in our mild autumnal weather, the buds of the peach start, and by freezing in the ensuing winter, the quantity of this fruit is diminished in some sections, still it is believed, by selecting favorable localities for our orchards, giving them, when convenient, a northern exposure, and planting the trees around the margin of our many inland lakes, the danger to be apprehended from the climate may, to a certain extent, be counteracted, if not entirely removed. A new virgin soil, just broke up, is the best adapted to the growth of fruit-trees; next to this, an old grass lay, recently turned over. The soil should be rich and mellow. The smaller kind of hoed crops, such as potatoes, beans and the various roots, are invariably recommended to be cultivated in the orchard, between rows of the trees; buckwheat and peas may be cultivated, but the grain crops, and even Indian corn, should seldom, if ever, be seen growing in the orchard.

It may not, however, be always kept a fallow soil; occasionally it may be seeded to clover, but a clover lay should not be permitted to remain for more than two or three years; if longer, a circuit around the trunk of each tree should be spaded up, taking care not to injure the roots, either by spading, or when the ground is plowed. From injury to the roots, innumerable sprouts spring up, which affect the growth of the tree. In addition to keeping the ground rich and fertile with manure, a small quantity of chip manure or muck, and about one peck of leached ashes, early in the spring, should be scattered around the trunk and roots of each tree. By chemical analysis, a large quantity of lime is found to be contained in fruit trees, hence the value of leached ashes as a manure, as they are, by the same analysis, found to contain more than 50 per cent. of lime. Salt is a very useful manure for the plum tree, applied about the trunk and roots each spring. The best compost for fruit trees is to mix air-slaked lime or leached ashes, or both, with muck or chip manure; and for plum trees and grape vines, salt may be added, and freely scatter it about each fruit tree every spring, or least every other spring. Washing the trunk of young fruit trees with strong soap suds, or applying whitewash to them, adds to their vigorous growth. A calcarious soil is the best for fruit trees. The pear, the plum, and the quince flourish best on a calcarious clay loam. The apple thrives well on either a calcarious sandy or clay loam, of a moist soil, without being wet and spongy. The peach and cherry prefer a calcarious sandy loam.

Seedlings are easily obtained by sowing the seed, or planting the pits of stone-fruit, being grafted or budded when they obtain sufficient size; they are then permanently transplanted for the orchard.

The mode of grafting and budding is omitted, as it needs cuts or engravings to fully illustrate it, and is already sufficiently well unkerstood by some one in each neighborhood. THOMAS recommends for an excellent grafting wax three parts of rosin, three of beeswax, and two of tallow; a cheaper composition is made of four parts of rosin, two of tallow, and one of beeswax—or half pint of linseed oil, half pound of rosin, and three pounds of beeswax.

The grape, quince, currants, gooseberries and the small fruits are propagated by cuttings and layers. As a general rule, the best kind

of stocks for grafting and budding are on seedlings of their own species—apples on apple seedlings stocks, pears on seedling pears. Pears, however, succeed very well on quince stocks; especially when wanted for dwarf or ornamental fruit trees, this mode of grafting is preferred. The peach, cherry and apricot are best propagated by budding. Scions for grafting and budding should be of the growth of the preceding year, and cut from thrifty branches in February or March, before the bud begin to swell with the flow of sap, and kept in some moist, cool place in the cellar, till wanted for use. Scions, however, grow very well if cut fresh at the time of grafting or budding, and immediately inserted before they have time to wilt and injure. Grafting succeeds the best early in the spring, just as the buds begin to swell and the sap to flow. Budding, in July and August, when the bark peels easily.

The time of transplanting is any time after the fall of the leaves in the fall or to their re-appearance in the spring. Some prefer the fall for seed-fruit and the spring for stone-fruit. Apple, or other fruit trees, of large size, as well as large size shade-trees, can be best transplanted by digging a trench around the roots in the fall, cutting off the roots a suitable distance from the trunk, and in the winter remove the tree with the frozen earth attached to the remaining roots, using levers and a team, if necessary, to extricate it, and place it in the hole dug and designed for it in the fall, trimming its top, so as to correspond to the diminished size of its roots, and by carefully pressing the earth about the trunk and roots early in the spring, when the ground begins to heave, its growth is frequently as vigorous as before transplanted.

As a general thing, in transplanting fruit trees the least injury done to the roots is the best; if the trunk cannot be removed with all the roots, those broken off, or bruised, should be smoothly cut off by a sharp knife and the top carefully trimmed, so as to correspond with the size of the roots. The hole should be dug sufficient in diameter to freely admit all the branches of the roots, without cramping them, and so deep that the tree will stand when transplanted about the same depth as before, at most not over one inch deep. When the roots are gently placed in the hole, assuming their natural position, a little of the best top mould should be thrown on to the roots, and, if con-

venient, may be moistened with soft water that has stood in the sun. The hole is to be filled up with good rich mould, and pressed firmly about the roots. Good mould is better than manure, as too much manure about the roots might cause the tree to decay.

The distance apart each way for fruit trees permanently transplanted for the orchard should be for the apple at least two rods, which allows 40 trees the acre; some, however, transplant them 40 feet apart, which allows only 27 trees the acre; for the pear, two rods, 40 trees to the acre; for the cherry, the same distance; for the peach and plum, one rod, or 160 trees the acre; for the quince, 12 feet, or 302 trees the acre. As a general thing, currant and gooseberry bushes are so crowded together about the margin of gardens as to be stinted in their growth. They evidently require more room than is usually allotted to them; the same may be said of grapevines. Pruning out to be carefully performed annually, to a certain extent, so as to admit the light and sun more freely among the branches to perfect and mature the fruit. The "shorten-in" method of pruning the peach tree gives a full, low, wide spreading, fruitful bearing top, and should be universally pursued.

Fruit trees may be trimmed in the winter or spring; but the best time is mid-summer. June is a very good month for the climate of this region. The quince should be allowed only one trunk, by cutting out all the young suckers. Grapes, to grow and bear well, require careful pruning and trimming. Universal experience teaches the necessity of cutting off the old wood every autumn or winter, if a continued supply of fruit is expected. Currants, gooseberries, and all the small fruit-bearing bushes require trimming to be productive of good large size fruit. In short, fruit trees require considerable attention and culture, if not to the extent of the field crops of the farm, they should not be entirely neglected, leaving the growth of the trees wholly to the laws of nature, after they are transplanted. Ornamental trees and flower shrubs, like the lilac and snow-ball, succeed the best when the suckers are cut out, and the branches are permitted to extend from one main stem or trunk.

A few well defined varieties of each kind of fruit should be cultivated, instead of a promiscuous culture of indifferent fruit. It costs no more to raise a tree of esteemed fruit than a poor one. Occa-

sionally fruit is obtained from a seedling tree equal, if not excelling, the best grafted or budded fruit. Such fruit constitutes a new variety, and its scions are sought to propagate fruit of the same kind of the parent stock.

Thomas, in the edition of his Fruit Culturist for 1849, gives only two varieties, each of summer and fall apples, and only ten of winter, in all 14 varieties which he esteems the *best*, viz: Bough and Early Harvest, ripening in the summer; Gravenstein and Fall Pippin, ripening in the fall; Baldwin, Hubbardston, Nonesuch, Northern Spy, Red Canada, Spitzenburgh, Esopus Wagener, Newton, Pippin, Rhode Island Greening, Roxbury Russet, and Swaar, ripening in the winter.

F. R. Elliott, of Cleveland, Ohio, says the best single variety of apples for Northern Ohio is the Belmont, or Waxen, and that the six best varieties of summer, fall and winter apples are each respectively in their order, the Summer Rose, Early Harvest, American Pearmain, Red Astrachan, William's Favorite and Early Joe; for autumn, Fall Pippin, Gravenstein, Porter, Fall Harvey, Ross Nonpareil and Rambo; for winter, Red Canada, or Nonesuch, Belmont, Swaar, Hubbardston Nonesuch, Canada Reisette and Rhode Island Greening. In addition to these may be named as good varieties, Early Red Juneating, Summer Queen, Maiden's Blush and Sine-qua-non, for summer fruit; Stroat, Strawberry, Princes Red and Green Sweeting, fall fruit; Bell Flower, Blue Pearmain, Lady Apple, Wine Apple, and Peck's Pleasant winter varieties. For cider, the Harrison and Newark Sweeting.

Thomas's best variety of the peach are, of freestones, Serrate Early York, Grosse Mignonne, George the Fourth, Large Early York, Newark Rareripe, Oldmixon, Brevoort and Bergen's Yellow. Of the clingstones, Large White Oldmixon, Heath and Washington.

A very excellent variety of peaches are produced in this country from the seedling trees, by planting the pits of the best varieties of peaches.

Thomas's best varieties of Plums are, the Jefferson, Washington, Green Gage, Coe's Golden Drop; and as second best, Blucker's Gage, Hudson's Gage, Imperial Ottoman, Bingham, Hulling's Superb, Purple Gage, Red Diaper, Coe's Late Red, Orleans Early, Pur-

ple Favorite, Red Gage, Early Royal, Howell Early, Blucker's Scarlet, Blue Imperatrice, and Frost Gage.

Thomas's best varieties of the Pear are, for summer, the Bartlett, Tyson, Madeleine and Rostiezer; for the fall, Buerre Bose, Louise Bonne of Jersey, Autumn Paradin, Gray Doyenne, White Doyenne, and Seckel; for winter, Beurre O'Aremberg and Winter Nelis.

Thomas's best varieties of cherries are, Black Eagle, Black Tartarian, Knight's Early Black, Downton, Down's Late, Bigarreau, or Graffion, Eiton, Brockport Bigarreau and Mayduke; the last is round, the others heart-shape.

The Catawba and Isabella are the best varieties of Grape for culture in this climate.

The Dutch Red and Dutch White Currants are larger than the common varieties.

Of Gooseberries, the Crown Bob, Roaring Lion, White Smith, Red Warrington, Parkinson's Glory and Houghton's Seedling are esteemed the best varieties.

Of Strawberries, all who have compared Hovey's Seedling with the common strawberry growing in the fields may form some estimate of the advantage of culture applied even to the smallest kind of fruit.

Address, delivered October 3, 1850, at the Annual Fair of the Calhoun county Agricultural Society.

BY HON. JOHN D. PIERCE.

Gentlemen of the Calhoun County Agricultural Society:

The elements of human subsistence are the products of labor. No man can live—no family can be sustained without them. Such is the ordinance, the unalterable decree of heaven. It is appointed unto man to till the ground, to subdue the earth and replenish it: if any will not work, neither shall he eat.

The earth is yet to be a garden, filled with delighted inhabitants, rational, moral, social. Every acre can sustain its family. In the beautiful language of the ancient seer, they shall sit, every one, under his vine and fig tree, and none shall make them afraid. Having beaten their instruments of death into implements of culture, nations shall learn war no more. When this high purpose shall be fully accomplished, the earth, beautified and adorned, teeming with living beings, elevated in mind, in character, in conduct, blessed and blessing all around, agriculture will have attained its destined grandeur and glory.

Even the natural productions of the earth require effort in their procurement. The deer is fleet of foot, and not easily taken. The huntsman often returns weary and empty handed. The fish that divide the waters of the deep are not to be taken without skill and persevering toil. The wild berries of the plains and low lands are gathered by the hand of industry. The spontaneous fruits of the tropical regions are not to be made available without exertion. They must be procured, and dressed, and prepared for use. It is hence true, the world over—that the elements of human subsistence are the products of labor. There is no living without them.

The race is one grand family, made of one blood, to dwell on all the face of the earth. And since all subsist on the products of labor, there should be no drones in the hive. Each and every one is bound to contribute his share to the common stock, and he is the

mean man, and she is the mean woman, that refuses to do it. Disguise it as you will, gild the matter over as you will, there is but two modes of living. Every family is sustained by its own labor, or subsists on the labor of others. There is no alternative. The whole tribe of non-producers, the idlers, the drones, the gamblers, the dandies, the speculators and their exquisites, who simper away their time, and sip soup with gilded forks, live on charity or by stealing. There is no evading, no resisting, no escaping this conclusion. They produce nothing to purpose, and yet many of them contrive to clothe themselves in purple and fine linen, in laces, silks and satins, and fare sumptuously every day. And they have been aided in this work of robbery by special legislation. While the poor man, having been stripped of all, and deprived of the fruit of his labor, is sent to prison, perchance, for taking a leg of mutton to feed a starving family, their swindling is legalized, and they are gentlemen and ladies, par excellence. I repeat, all subsist on the products of labor. These are derived from mother earth, and there are but two modes of obtaining those products. Each and every one lives by means of his own labor, or draws his subsistence from the labor of other hands. This is specially true of the prince and the beggar, the laced lord and the livered page, the muslined and jewelled duchess and her washerwoman. They live by plunder.

It deeply concerns the laboring and producing classes, the great agricultural portion of any country, to know what becomes of the products of their unceasing industry. They labor, but do not always enjoy the fruit of their toil. They build houses, but others oft inhabit them; they plant vineyards, but others eat the fruit thereof. Why is it so? There is something radically wrong in the political and social machinery, or it would not be.

They support all the institutions of the country, pay all the taxes, feed all the poor, clothe the naked; foot all the bills of government, keep up the army and navy, maintain the deaf, dumb and blind, supply the idler, the gambler, the speculator, the dandy, the belle exquisite, with all that they possess or squander. The whole burden is on them. All the expense of luxury, debauchery and crime, is paid by the laboring, farming, producing classes. They create all, furnish all. Let them cease their toil for one year, and what would

become of your born gentlemen and ladies, your foppish, would-be gentry, your delicate fingered squeamish dames, who can sit over the finest wheaten loaf and simper, and whine, and complain, because it is no better, without ever dreaming that it has cost the labor of the ploughman, the sower, the reaper, the thresher, the miller and baker, as well as that of the noble horse and patient ox.

The yearly productions of the earth, reared and procured by the hand of labor, are immense. It is difficult even to approximate the amount. Consider for a moment how much is required to support one family for the single year, and then you can foot the bill for all the families on the globe for the same time. Take one item—allow to each family thirty bushels of bread material, and it is a small allowance, and you have the almost inconceivable sum of five thousand millions of bushels, as required for the whole race in one year. This, however, is but one single item in the great bill of human subsistence and expenditure.

It is computed, and it is in all probability as near an approximation to the truth as can be reached, that if all the wealth, all the property on the face of the globe, was struck out of existence at one fatal blow, the laboring portions of the race would reproduce the whole amount in five years. This, of itself, shows conclusively that one-fifth of all the products of labor pass into the hands of the non-producing classes, and is the amount which they yearly consume. What an enormous tax! No wonder thousands live poor and penniless, and die in poverty. In Europe one hundred and eighty millions toil perpetually, that twenty millions may live in idleness, luxury, dissipation, debauchery and crime—in every named and nameless folly, extravagance and abomination. The people of England pay yearly out of their hard earnings about two hundred and fifty thousand dollars to furnish provisions for the table of one household—costing them over five hundred thousand days' work.

The causes and the remedy of the enormous evils to which I have referred, are political questions which I shall not discuss on the present occasion; but it is of the highest importance to the great farming community, and to all other producing classes, to know what becomes of the products of their ceaseless toil. Unless they do, they cannot know what measures of public policy to support, or what

institutions to aid in building and sustaining. They must know something of the laws that govern trade, the great markets of the world, and the exchanges. Ignorant of these, the few have it in their power to control their destiny and tax them at pleasure. The great object should be, to retain in the hands of the producers of wealth a large proportion of the riches they create. They may exchange value for value on the principles of a fair and just equality, but there is no reason why one man should receive for a day's labor products, which cost in their creation the labor of a thousand days. There is no right, no justice in it; but it is the way the merchants of your great cities become princes. Just in proportion as the producers of wealth can retain in full possession the property which they create, is there encouragement for improvement in all the departments of labor.

Did each and every one contribute his full share in the production of all the elements of human subsistence, the daily amount of labor required of each individual would be no more than is essential to health of body, cheerfulness of mind and the highest elevation and dignity of man. While labor, to the dregree I have named, is a positive blessing, excessive toil from day to day, in childhood, maturity and old age, is a great and sore evil. It is an outrage, a wrong done to humanity itself; and he is the tyrant and the despot, the fiend that creates the necessity for it, because it robs man of his dearest rights, the improvement of his nobler nature, his social sensibilities, his intellectual and moral powers. It is the fool of the lowest order that can despise labor; without it, you can no more rear up the full grown man active and healthy, with all his physical, social, rational and moral faculties, developed in due proportion, than you can rear the mountain oak in the flower pot of your child. So of women—one beautiful in form, healthy, useful, happy in herself, and blessing all around, cannot be raised without a proper degree of bodily exercise. Look at the hot beds of wealth in the great cities; their sons are usually dandies of the apine order, and their daughters often senseless, shapeless, imbecile, frail, and nervous as the aspen leaf—and by the fourth generation the family is extinct. A man or a woman, in the nobler sense of these terms, can no more be raised by such training than you can rear the rose or the lily upon the

icebergs of the pole. How much more worthy of commendation and praise, and to be admired, is Miss Fillmore, engaged in a laborious employment, than the whole host of frivolous belles, with all their tinkling gaudy ornaments! These are a greater burden on society than your poor-houses and prisons.

It is hence clear that labor is the heaven-appointed means of gaining an honest livelihood. It is highly important that labor should be wisely directed. It is the object of this association to compare notes, to gain information, to learn from each others experience, that the labor of the county may be directed to the most profitable results. A vast deal of benefit has resulted from such institutions.

Of all employments, agriculture is the most ancient and honorable. Our common progenitor was placed in a garden, to keep it and to dress it. Noah, the second father of the race, was a husbandman and planted a vineyard. Forty years Moses kept the flocks of Jethro, his father-in-law. Thus engaged, were nearly all the ancient patriarchs. Though the then princes of the earth, their familics were not above rural and domestic employments. They could tend the flocks, draw the water, slay and dress the kid, and prepare it for use, even though angels were in attendance to dine or to sup. The sweet singer of Israel was called from active sheep husbandry to preside as chief magistrate over the affairs of the nation. In the best days of the Roman republic, her great men were farmers, and agriculture was honored. Cincinnatus was called from the plow, and the destinies of the State committed to his hands. Fabricius, Curius and Camillus were as skilled in husbandry as in war; but when Rome gave itself up to the god of war, and her eagles had triumphed over every land, and there were no more nations to conquer or plunder, the people turned their arms upon each other. Long civil wars ensued, and fair Italy itself became desolate and waste. Then was true to the life, this inimitable description of her greatest of poets, as to the world below:

> "Where fraud and rapine, right and wrong confound,
> Where impious arms from ev'ry part resound,
> And monstrous crimes in ev'ry shape are crown'd,
> The peaceful peasant to the war is prest,
> The fields lie fallow in inglorious rest,
> The plains no pasture to the flock affords,
> The crooked scythes are straighten'd into swords;
> And there Euphrates her soft offspring arms,

And here the Rhine rebellows with alarms;
The neigh'bring cities range'on sev'ral sides,
Perfidious Mars, long plighted leagues derides,
And o'er the wasted world in triumph rides."

The whole country reduced to extremity, the fields uncultivated, the people suffering for want. There was danger of tumult and insurrection, and then it was that the wise men of the day turned their attention to agriculture as the only means of saving the State from utter ruin. The poet sung of corn and wine, the rearing of cattle and sheep, and the management of the frugal bee. The man of science developed the principles of culture, the nature of soils, the adaptation of plants to different localities; and men of letters gave dignity to the subject by the higher efforts of literature and taste—for they were practical farmers. Then too, it was that Virgil wrote his Georgies four poetical essays on agriculture, a work as a whole, never yet equalled. The effect was like magic. Italy became a garden. He taught his countrymen what kind of cultivation produces the joy giving corn in its different varieties, when it is proper to stir the earth and join the grape-yielding vine to the elm, its natural trellis, what care and culture are required in the propagation and rearing of cattle and sheep, and how to manage, successfully, the ever busy and honey-gathering bee.

To enter upon a high career of agricultural improvement is an object of paramount importance. It is so in every point of view. The happiness of the individual, the welfare of every family, the prosperity, elevation, and power of the State, are depending on the successful cultivation of the soil. The farming interest, in its several branches, is the basis, the stay, and support of all other interests. When it flourishes they flourish, when it languishes they languish. A short crop in any country will try the stability of its institutions; a second will shake them as a reed; and a third leave scarcely a wreck behind. Should the banks of mother earth refuse, for a considerable time, her usual discounts from her rich deposits, your moneyed institutions would be as worthless and useless as the frost-bitten oaken leaf in mid-winter. No trade can be sustained, no business prosper, unless the great agricultural interest of the country is prosecuted with energy and success. No matter upon what pursuits or resources a country may rely for its sustentation and greatness, if it has no farming interest—if its fields are neglected, uncultivated and

waste—if it has no agricultural productions upon which to fall back in the hour of need, its prosperity, its wealth, its power, its independence, its very existence, may all cease in a day.

While Palmyra centered in herself the commerce of the world, she was rich and powerful; but when Tyre became the mart of nations, her days were numbered, and her ruins are no more. Tyre added another element to her prosperity, in the abundance of her wares, her manufactured goods, and she became great—her merchants were princes. But like Palmyra, she had no agriculture; other cities drew off her commerce, rivaled her manufactures, and her greatness departed. Spain was once a highly cultivated, prosperous country; but when the gold and the silver of the new world was opened to her cupidity, agriculture was abandoned, and Spain has sunk into utter insignificance in the scale of nations. Through the abundance of their merchandize, Venice and Holland disputed, in succession, the empire of the seas. In process of time, Venice sunk to utter powerlessness, for she had no agriculture upon which to rely. Not so with Holland, though she lost the ascendency, yet she maintained herself as an important power; for she had also abundant agricultural resources. England drew to herself the commerce of the world. and added thereto manufacturing establishments, rivaling all others on the face of the globe, and was long alone in the ascendant. True, she has agriculture of a high order, but not sufficient to sustain the mighty fabric of her power. Russia is chiefly agricultural, and is already more formidable on the continent of Europe, than Great Britain. The nations have ceased to tremble at the lifting up and roar of the lion. Others are sharing largely that commerce which she so long controlled, and will soon be independent of her manufactures. Her decline is evident and certain—she cannot maintain her present position, much less advance. Her son Jonathan will take her commerce, and dispute with her the markets of the globe. He is bound to do it—he has within himself unlimited agricultural resources, manufacturing capabilities without number and end; and the coal, the iron, the copper, the silver and the gold. If the fathers of the republic had relied expressly upon their ships and manufacturing establishments, their looms and external commerce, what would have become of American Independence? They succeeded

because they had recsources within themselves—they relied upon mother earth and her productions, yielded them as the reward of their toil.

Agricultural improvement, therefore, is a matter that demands the earnest consideration of all classes of community; no matter what their trade, occupation, or employment, they have a deep stake in the progress of the great business of husbandry. It is their life—they cannot subsist without its products. Indeed, the whole superincumbent mass of all the business of every name or nature is based upon agriculture and sustained by it. No nation can permanently prosper unless this be made its fast anchor.

The great object of farmers in this country is to make the most of their labor. In England the object is to make the most of their land. Here land is cheap and labor high—there labor is cheap and land high. The mode of farming here cannot, in all respects be the same as there. To make it profitable there must be a difference corresponding to this different state of things.

There are three modes of farming pursued more or less extensively, which I propose briefly to consider.

The first, as I have no word to describe it fully, I shall denominate the moon, chess, sorrel, pigeon-grass, shallow-plowing and naked-fallow system. This mode of farming has many practical advocates. Before any thing can be done, the moon is to be looked after, and if she is not in the right spot, or in the right trim, there must be no planting or sowing. Columella, a Roman agriculturist, is qouted as directing—

> "Sow peason and beans in the wane of the moon,
> Who soweth them sooner he soweth too soon;
> That they with the planet may rest and rise,
> And flourish with bearing most plentiful wise."

Now I apprehend that Columella is misunderstood. He was a man of too much sense to suppose that the moon had anything to do with the growing of peas or beans. The explanation is this. The ancients had no almanac. They observed the phases of the moon instead. What he meant to say was, sow your peas and beans in the old of the moon, after the vernal equinox, not before. It has been supposed, also, that soap, to be good must be made in the new of the moon and taken off at the flood of the tide. So of pork, that it must be killed at such a time or it would shrink. But it has been found

that good ley and clean grease will make good soap, and that sound corn will make pork that will not shrink in the boiling, whatever may be the condition of the moon, or the state of the tides. Good tillage, and the queen of night will do your crops no harm; while without it, no matter whether the farmer regards the sun, moon or stars, a good crop will not come.

But, say the practical advocates of this system, do as we may, our wheat will turn to chess. No doubt of it. I once had a like misfortune. I planted fifteen acres of corn—more than half of which turned to sorrel of the finest broad-leaf kind. The next year I put three hundred loads of manure on five acres of the same land, and the sorrel all turned back to corn, and I got fifty bushels to the acre. I had this summer about an acre of the nicest kind of chess. It grew on new land never before sown, lying at the end of the field where it was trode over by cattle and sheep, and teams. When sowed it was dragged over but once, and the surface being smooth, few kernels of the wheat were covered. Now it must be perfectly obvious to all believers in the transmutation scheme of farming, that the wheat left exposed to the action of the weather, soon became so damaged as to lose its vitality as wheat. Hence, when it grew it was chess. This is a clear case—there could be no chess in the ground—it had never before had a crop upon it. The reasoning is conclusive, and the question settled! But I must spoil the whole story after all. The very next morning before the field could be so harrowed as to cover the seed, clouds of pigeons came and gathered up all the wheat, and appropriated it to their own use. Not a kernel was to be seen to grow wheat, or become chess.

So, I apprehend, that if the writer of the premium essay of the State Society had dreamed so far as to examine the part of his field where he had failed to cover his wheat round the stumps, he would have found that quails or pigeons, or squirrels, or others of the four footed or winged tribes, had taken good care of the scattered or uncovered wheat. As in the case of the parable of the sower, the seed that fell where it lay exposed, the fowls came and devoured it.

But a writer in the Farmer, on the parable of the tares and the wheat attempted to prove that tares mean chess—this may be so. He then comes to the conclusion, by a course of critical remark, (and it is a piece of criticism never before equalled,) that the wheat—the

good seed had done the mischief; while those connected with the parable, supposed, in their simplicity, that it was the work of an enemy. And the editor seems to think the conclusion a sound one. Why, you might just as well undertake to prove the doctrine of the transmigration of souls from the last years' comic almanac.

Now, there is one uniform, fixed law—not to be set aside or annulled by any beliefs, or hearsays, or 'say sos,' guesses or suppositions, and that law is this: What a man soweth that shall he also reap; whatever grain he may chance to sow, whether it be wheat or some other grain, the God of Nature hath given "to every seed his own body."

True, I once thought I could do the same thing. So I went to work to get the premium of $100 offered through the Albany Cultivator. I made a little yard in the corner of the fence, and out of sight of everybody. I gathered thirty heads of wheat that had been exposed to the weather for over two months. The vitality of the wheat was so far gone that only fifteen plants grew—these were as stunted and poor as could be desired. I watched them—I was sure of success, but when they headed out, true to the laws of their being, there was wheat—poor enough, it is certain—yet none of the plants could be chess, and so I failed of the premium. In ways like this I have tried to secure wheat to change its nature and belie itself, but have failed. I think I shall not try any more until my fine merino sheep begin to bring forth litters of young wolves. Perhaps then there may be some better chance of success. I call upon the advocates of transmutation, to give us no longer their beliefs, hearsays, or guesses, but to go to work like men and demonstrate, by actual experiments, that wheat, the good seed, is the enemy, doing all the mischief—if it is guilty of disobeying the laws of its being, it can be detected and shown to be a kind of grain, which may be seduced out of its own nature and become that mean thing—chess. Come right up to the work. All I ask in the matter is, that you be sure that each and every plant springs from the pure wheat.

When it can be proved that barley produces pigeon grass, then it may be that it will be clearly seen that wheat, the good seed, is the enemy chargeable with the introduction and propagation of chess. In many respects pigeon grass resembles barley as much as chess

wheat. This grass, it would seem, is getting greatly into favor. The present mode of cultivation is sure to produce it in great abundance. Why should farmers pursue a course which must yield a vast quantity of both chess and pigeon grass, unless they are desirable to be raised?

As soon as the wheat, or other crop is removed, no clover, or other tame grass seed having been sown to succeed and cover the surface, nature steps in and furnishes one. She will not leave the ground bare for winter unless the soil is worn out, utterly exhausted. The covering is sometimes luxuriant and profuse, but useless to the farmer, and oft a pest, a nuisance. She gives you a fair chance to select the kind of covering you will have; but if you make no selection, and furnish no seed, she iwll select and furnish seed too; and you have no right to complain, whether it be sorrel or pigeon grass, or some other production of the like value. Then there are two other things, to be mentioned in this connection that contribute largely to the increase and growth of these plants, I mean shallow plowing, and naked fallows—the seed being scattered upon the surface—shallow plowing covers them just deep enough togrow quick, to come up and be ready for a fair start with your corn crop. It gives them an even chance for the race. Besides naked fallows afford a fine opportunity for such seeds to come up, grow, and perfect their seeds anew before the second plowing. This a great gain. There is one advantage in this system of farming not to be forgotten. Naked fallows and shallow plowing require less strength of team, and as it is common to keep working cattle on oak grubs in summer, and to straw them thoroughly in winter on the bleak side of a hill, there is a perfect fitness between the team and the work to be done. When there is a lack of life and strength, they can readily be supplied by a frequent external application of the blue beech or hickory withe.

The second mode of farming to which I shall refer, is the real humbug system. The great purpose and object of this system seems to be to relieve the unsafe pockets of one class of farmers for the special benefit of the safer pockets of another and smaller class. There are in the history of the past some choice specimens and beautiful illustrations of this system of farming. A man takes his sheaves of wheat and strikes them over a barrel, and in this way procures his

seed wheat. The earliest and ripest berries shelled first and he obtained the best for seed. His wheat improved and increased in quantity, it attracted attention. Barrel wheat became celebrated. He kept his own secret and sold from year to year, all he could raise for seed. Two or three or five dollars a bushel was of no account, it would pay, it was barrel wheat. In process of time the mode of obtaining it was discovered, and the bubble burst. It was found that any one could have barrel wheat as well as the shrewd Vermont farmer.

Another takes good care of his pigs, and in a short time he has a fine breed of hogs, they are noticed, written about, and the demand for them soon becomes general. Twenty or thirty dollars a pair is a small matter, they will soon pay. But while there is much in having a good breed of swine, there is also much in the remark of a sagacious old gentleman who always had fine pigs. "They come to me," said he, "for my breed of hogs, but they will need my feed to keep the blood pure."

Next comes the Rohan potatoe wonder. All were on tiptoe. If a man could get one in his pocket at any rate or price, he was sure his field would all turn to potatoes of the largest and fairest size. Many a bushel of the miserable concern was sold out for from ten to twenty cents apiece. But the Rohan has gone to the shades with other like humbugs.

I will now refer to the greatest of the age, the morus multicaulus mania. Here the fever rose to extreme madness, thousands and tens of thousands were expended, every man woman and child was sure, if a few cuttings of the multicaulus could be obtained, no matter whether dead or alive, the whole family would forthwith be clothed in the finest silks and satins, besides accumulating untold wealth. It was soon found, however, that neither silks nor wealth was to be obtained without labor—the fever abated, spasms followed and a general collapse ensued. Thus exploded the morus multicaulus bauble, leaving in its train long faces and broken fortunes.

I might mention the beet root and corn stalk sugar excitement, No doubt there is sugar in both. But will they pay the manufacturer? In this country the beet grows so rapidly and so large, there is not half the sugar in it as in France. An acre of corn turned into

pork, will buy as much sugar as can be made from the stalk, if the amount of labor and expense in both cases be taken into the account.

We have now attracting great attention, the long wooled Merino, and our farmers are liable to be gulled by imposition and tricks of trade. That the merino can be improved there can be no doubt. But a pure blooded long wooled merino is a thing of fable. What is called the Pauler long wooled merino is evidently a grade sheep. So of the French merino, it is unquestionably a cross of the fine Spanish with some of the long wooled sheep of France. The merino is a short-wooled sheep in all time and the world over. Its origin is is not certainly known. The Argonants, who are fabled to have sailed in quest of the Golden Fleece, may have taken with them, and this may be the meaning of the fable, the fine Mingrelian sheep into Greece. Thence they were taken into Italy, and in all probability are the Tarentian ewes mentioned by Virgil. Some of these Columella, who resided in Spain during the reign of Claudius, crossed with some Barbary bucks. This is the supposed origin of the race. Now it is useless to talk about long wooled merinos; as much so as it would be to talk about short wooled Leicester. Bakewell or Cotswald sheep may be brought here and sold for a high price. But see to it, and be sure that the wool is not of two years' growth. Some of the finer grade sheep have much longer wool than the pure blood merinos. But they are a kind of sheep any farmer can raise with a little care and expense. When you pay five hundred or one hundred dollars for a buck, it will be some time before you get your money back. I am incredulous when I see it stated that a flock of French merinoes will yield from thirteen to twenty-five pounds of wool per head. I think the whole story is not yet told. I once saw a statement in a paper as respectable as the Albany Cultivator, of some fifteen Cotswolds, the clip of which ranged from twelve to twenty pounds of washed wool. I saw one of the best subsequently sheared, and it fell short of six pounds. And the year after gave less than three; the sheep had been well kept, and was in fine order. While I would encourage improvement in the raising of stock, and liberality in expenditure for the purpose, I would say to the farmers of the county, beware of gull traps—be sure you get the worth of your money.

Randall, in his work on sheep, gives a history of the French merino. The most noted flock averages about eight and a half pounds unwashed wool; allowed to shrink one-half in washing. Are our farmers to be deluded with the idea that, by crossing the Atlantic, the fleece of this sheep will increase so as to average over fifteen pounds of washed wool per head? Only think of a ewe three years old, and her lamb, ten months old, weighing together about 250 lbs., carrying 40 pounds of wool—one-sixth of their live weight! Soaked in oil, or rolled in tar or mud, the fleece would scarce reach the amount.

In this connection I have one word to say in regard to our agricultural papers. They have great influence for good or for evil, for weal or woe. It is their imperious duty to guard scrupulously the farming community against imposition. Frequent imposition is the greatest impediment to real improvement. They should not suffer their columns to become the vehicle of deception; but are bound to expose the vile deceivers for gain. An inordinate desire to make money leads to highly exagerated statements; but such statements are the greatest enemy to progress. Farmers in the main will be careful not to be duped more than once. Undue cautiousness thus induced, often prevents for a long time the adoption of real improvements. It is not all mere prejudice against book farming that does the mischief. There has been too much imposition practised, too much humbuggry in the business. This has created suspicion in the minds of a multitude of honest men. Hence they regard with distrust all statements which seem to them of a character like those that have been proved to be exaggerated. There should be in this matter, on the part of the agricultural press, the utmost carefulness; otherwise it is liable to defeat the object it is aiming to promote.

The third mode of farming, to which I would now call your attention, is the true system. No system of farming can be the true one, which is not adapted to the peculiar circumstances and condition of a people. It must have reference to their wants, the markets within their reach, the nature of the soils they have to cultivate, the character of the climate, and a proper selection of plants adapted to those soils and climate, and the kind of cultivation most likely to bring them to full maturity, and ensure a profitable result. These essen-

tial elsments of a true and proper system of husbandry, duly regarded, would in a short time change the entire aspect of the country.

An entire abandonment of naked fallows and shallow plowing, is the first requisite in an improved system of husbandry. Naked fallows are worse than useless. They involve two or three plowings—a waste of time and money—a wearing out of plows, teems and men. An expenditure wholly unnecessary and injurious. Besides, they expose the soil to a burning sun by which a great portion of the gases, generated by the decaying plants within it, are lost. But this is not all; by means of these unnecessary and useless plowings which commence as soon as spring work is done, the corn crop is neglected, the hay crop is neglected, the potato crop is neglected, the garden is neglected, the fruit yard is neglected, the teams, instead of recruiting, are drilled out, and instead of fine meadows upon which to recover their wasted energies, are turned loose when night comes, to grub a living as best they can. The cows fare no better, straw and frost-bitten hay in winter, and oak grubs in summer, little milk, less cream and no cheese. As to the sheep, it is the same, with the additional advantage of the sorrel and pigeon grass on the summer fallows. No better prescription for killing off old ewes and poor lambs than such can possibly be given. So much for naked fallows; these evils result from the system. So long as the plows, teams and men must all be on the fallows, there can be no tilling of the corn or potatoes, or care of the garden, or orchard, or fine meadows for the teams, ewes, sheep and other stock, and no cutting of hay in the season of it, no clover or other tame grasses to cut, and even the wild grasses of the low-lands are neglected to be bitten by the frost. But this is not all the biting. It prepares the way for the ravens, foxes and dogs to pick and gnaw the bones of some of the farm stock, before the ensuing spring has brightened anew the face of the earth.

What, then, is to be done? Before I answer, I would say, abandon as staple products, the oat and barley crops. They do not pay; besides, they are in the way of other and more valuable crops. They are in the way of the corn crop, and in the way at harvest time. The oat is a native of a colder climate than ours. Where corn cannot be raised, it flourishes and grows to perfection. Our climate is

too warm and too dry for its profitable culture. In a very wet season oats do well. This is true of barley to a certain extent. In some localities it yields a good crop; but, after all, neither oats nor barley pay as well as other crops. Nor is our climate well adapted to the growth of peas and the Swedish turnip. They often do finely, but generally the climate is too is too hot and dry for them. They belong to a wetter and more northern clime. They are, hence, not to be relied on as certain crops.

Again it is asked, what is to be done? I answer, seed down to clover and other grasses every field you sow. No matter what the crop may be, seed down. Sow plentifully of clover and other grass seeds. Cultivate less land and raise more wheat. In early spring, when you seed down, put on to your wheat field a light harrow, and drag it over, then the roller. Before sowing, wet your clover seed in strong brine, and let it lie in a heap three days—roll in plaster, lime, or ashes—it will then all grow. This work done, select your ground for a corn crop. Plant largely, if you have made up your mind to abandon naked fallows, and to give up in the main, oats and barley; you will then have abundance of time to do the crop something like justice, and you may be sure of getting more corn to the acre than you can of oats or barley, and one bushel is worth more than two of either. Corn is a sure crop. There has been no failure since the settlement of this country. After the ground is selected, draw out and spread upon the poorer parts of it, if not enough for the whole, all the manure in and about your yards, stables, pens and out-buildings. This will promote the growth and health of the corn, and contribute essentially to the health of the family—a double purpose gained. When this is done, put on the plow and turn over the field, at least seven inches deep; if you have strength of team, and go eight, nine, or ten, so much the better. Let every furrow be laid over smoothly, and be straight as a line. Plowed thus deep, there will be no danger that the grass will come up through the sod. Put on the harrow, and drag lengthwise of the furrows till the surface is pulverized finely. Mark out and plant your corn; when up, plow and dress it, and then the cultivator will keep it clean of weeds.

When wheat harvest is completed, then is the time for plowing for the next crop. The teams having had good rich meadows upon

which to feed, are recruited and strong, and the work can easily and readily be done. If the lot to be plowed is a meadow that was mowed the last June, it will still have upon it a large growth of clover, and other grasses to be turned under. And so if it has been pastured. Plow, as in the corn crop, nothing less than seven inches deep, and if you go ten, so much the better. Plow straight, turn every furrow smoothly, and when you sow, drag so as to pulverize the surface thoroughly. A late writer tells us that by this mode of culture, he gets from twenty to thirty-five bushes per acre, instead of from twenty to twenty-five. By one plowing and cultivated as here proposed, a farmer in the east part of the State has obtained the past season from two acres, one hundred and six bushels of wheat, weighing sixty-four pounds to the bushels. Your corn crop being glazed and ready to be cut, can be set in rows, the ground plowed and put into wheat. Or it can remain till next summer, and at odd spells, plowed over deep as in the other case, and the cultivator drag run over it to keep it clean, and it is ready for sowing at the proper time. A writer in the Farmer tells us that he has twice failed, when turning under grass. From his own account of the matter there was reason for it—the grass was not killed, it came up through the sod, and spoiled his crop. And why? Evidently because of shallow plowing. Three or four inches deep will not do the work. Nothing less than seven will be sure to accomplish the object.

By the course here proposed, an advantageous rotation of crops can be introduced. Such a rotation as will not only preserve the fertility of the soil, but improve it, and render the farm still more productive. Being divided into a suitable number of lots, you can have one for wheat, one for mowing, one for pasture, and one for corn. If you mean to preserve the fertility of your lands, and increase their productiveness, you must not raise wheat upon the same field oftener than once in four years. This course of farming will enable you to keep more stock, of all kinds—more cattle, more sheep, more swine—and to keep them to profit, to introduce gradually the dairy business. No business is more profitable. All who have embarked in it, have become wealthy. It is a burning shame to Michigan, to be importing cheese and paying from ten to twelve cents per pound, when clover will grow so luxuriantly as here; especially if

you will apply to each acre of your meadow land one half bushel—a bushel would be better, of plaster, as often as you seed down the field. This would impr ove .every subsequent crop, till again ready for wheat. An occasional dressing of a bushel of lime to the acre will soon be found of essential service to this crop. Whenever the field comes in order for a corn crop, every load of manure on the farm should be drawn and spread upon it. When you abandon naked fallows you will find time to do this work. Besides, farmers in Michigan have inexhaustible resources of fertility in the rich marl deposits on the banks of our rivers, and in the muck of our low lands. When the marl deposits come to be used they will be found sufficient to supercede both plaster and lime. What cultivation will do, even on poor lands, you may learn from the example of an 'old Corycian swain:'

"Heir to few acres of a barren field,
Which neither wine, nor corn, nor grass did yield;
He coleworts planted, vervain, poppy sow'd;
Where thorns once grew, his bed of lillies stood;
When he returned at night, with plenty stored,
His unbo't dishes heaped his humble board,
Nor envied he the wealth which royal courts afford.
First in the Spring he blushing roses sees,
In Autumn first unloads his fruitful trees.
His grounds with pines and fragrant limes are fill'd,
His bees the first of all the flowery field,
Produce their young, the first their honey yield.
And all the blossoms which his orchards bear,
Ripen into fruit, when harvest crowns the year.
He plants his pear trees and his elms in rows,
The damask plum on thorns engrafted grows;
His spreading plains their pleasant shade extend,
Where he enjoys his claret and his friend."—VIRGIL GEORGICS.

To all admirers of fine stock, and especially to all lovers of the noble horse, I will give a description from the same writer, never surpassed, if ever equalled:

"The colt that for a sire is designed,
By sure presages shows his generous kind,
Of able body, sound of limb and wind,
Upwards he walks, on pasterns firm and straight,
His motions easy, prancing in his gait.
The first to lead the way, to tempt the flood,
To pass the bridge unknown, nor fear the trembling wood;
Dauntless at empty noises, lofty neck'd,
Slender his head, his belly round. broad back'd,
Brawney his chest and deep, his color grey,
For beauty dappled, or the brightest bay;
Faint white and dun will scarce the rearing pay."

I had intended to speak more fully on the planting of trees and the raising of fruit, than time will permit. But I cannot close with-

out urging in a few words on this important matter. It is so easily done—requires so little time and expense—and is so great a luxury. If you would assemble around you smiling faces and cheerful countenances to cheer you in your labor and toil, plant you fruit yards, and orchards, and vineyards. A few short years will give all that heart can desire. Children crave fruit. I once knew a little boy, who said earnestly, " he did wish the time would come when he could go under the tree and pick up all the apples he and his little brother could eat." This is true of all children. You may have the currant, the gooseberry, the raspberry, and the lucious strawberry. The cherry, the plum, the appricot, the nectrrine, the quince and the peach, may all be yours. Also, the delicious grape, the pear, and the ever abiding apple, in all their choice varieties. A little time, a little labor, a little patience and perseverance will do it all. But remember if you would have fruit in perfection, rich and fair, you must cultivate and manure highly. I gathered fine peaches, the past summer from a tree, the stone of which I planted only two years ago last spring. Besides the tree was transplanted this season; but the roots were all preserved and carefully set. The tree was not torn up, the roots cut off, a little hole dug, and set as you would a bean pole.

If you would see a fair illustration of what a little time and labor will do, visit my nearest neighbor, whose trees are loaded down with choice fruit. By the way, as I have mentioned the peach, I would say that I have learned from experience, that it ought never to be transplanted after it is one year old. You will get fruit sooner from a tree grown from the stone, and properly cultivated, than you can from a tree four years old, taken from any nursery, do as you may with it. No tree requires so much care in setting as the peach. Again I say, plant you fruit trees, and orchards, and vineyards, and eat ye the fruit thereof, you and your children. You can have luxuries, pure and fresh, from the opening of the spring till it dawns again, which no city can buy, equally pure and fresh.

Stretching from the Atlantic to the mighty Pacific, we have a noble country as sun e'er blessed with genial ray, or as gentle showers e'er watered, or ever fanned by the pure breeze, or spanned by the bow of promise, or the bright arch of vaulted heaven. Occupying

the region of the cereal grains, the golden harvest—the fruits is our and the flowers—the milk and the honey.

> "No pent up Utica contracts our powers,
> For the whole boundless continent is ours."

Not that our jurisdiction extends over the whole. But our institutions, example and power, effect and control the whole. The grasses, the grains, and the fruits of all temperate climes are ours. In addition we have the native corn exceeded in productiveness and ease of cultivation by no other grain, and in all its valuable properties, exceeding all others, except the pure wheat. Besides, we have building material in endless variety—the oak, the whitewood, the pine —the easily wrought sandstone, the solid granite and the pure marble. Coal, iron, lead, copper, silver, and gold are ours. Rivers, lakes and seas to bear the rich products of one portion to be exchanged for those of another. Canals and railroads for intercommunication. Schools to carry the elements of knowledge to every child, and the electric line of thought to convey intelligence from one city, town and village to others. Ours is a soil of virgin purity and richness and easy of cultivation. Comparatively, no thorns or thistles, or poisonous herbs, no noxious reptiles, or beasts of prey, or dragons fierce, to annoy and impede the progress and onward march of our farmers in the race of improvement. And in honor and in right, we are bound to preserve our soil in all its fertility and productive energies for our children, and not leave them a poor, miserable, worn out, exhausted and worthless inheritance.

The Roman poet's description of fair Italy, may be applied in all its force and beauty, to our own State.

> "But neither Median woods, nor fertile soil,
> Nor pleasant Ganges, Hermas, streams which toil
> Thro' beds of gold, nor India's fragrant lands,
> Bactra, nor th' Arabs' incense burning sands,
> All cannot, though all boast of something rare,
> With the just praise of" *Michigan* "compare."

Cass County Agricultural Society.

DOWAGIAC, MICH., Feb. 12, 1851.

J. C. HOLMES, Esq:

Dear Sir—I am requested by the Secretary of the Cass County Agricultural Society, to transmit to you the enclosed, as the proceedings of this Society for the year 1850, with the exception of one meeting, called for the purpose of hearing an address from W. Isham, Esq.

The lateness oft he season at the formation of this Society, rendered a postponement of further proceedings necessary, for the time being. Funds, in the meantime, are being collected for active operations during the present year. I feel very sensible that the Society in this county will be obliged to struggle under many difficulties and discouragements, before it will be placed upon a permanent footing; and that a few active and spirited individuals will be obliged to bear the exertions and sacrifices necessary to that end, before the apathy or opposition in community will be overcome, and those who now stand aloof, made to see and feel the beneficial influence of such societies, and thus induced to contribute to their aid.

Very Respectfully,

JUSTUS GAGE,

Cor. Sec'y of the Mich. State Ag. Society for Cass Co.

ORGANIZATION OF CASS COUNTY AGRICULTURAL SOCIETY.

At a public meeting held pursuant to notice at the Court House, in Cassopolis, on Saturday, the 17th of August, 1850, for the purpose of organizing a County Agricultural Society for the county of Cass, Justus Gage, of Wayne township, was called to the chair, and G. B. Turner, of Lagrange, appointed Secretary.

On motion, the chair appointed a committee of five to report to this meeting the names of permanent officers of said society for the ensuing year.

On motion, the chair appointed a committee of five to draft a constitution for the government of the Cass County Agricultural Society.

On motion, the meeting adjourned for one hour, to meet again at the same place and hear the reports of said committees, and transact such other business as might be brought before it.

The hour having elapsed, the meeting was called to order by the chairman.

The committee upon the constitution reported a constitution for the government of the Cass County Agricultural Society, the second article of which was amended; it was then unanimously adopted.

The committee upon permanent officers reported the names of the officers of said society for the ensuing year, which report was unanimously adopted.

On motion, the following resolutions were severally adopted:

Resolved, That the executive and town committees be, and they are hereby instructed to proceed at once to obtain as many names as possible in their respective townships as members of this society, and that they be authorized to receive the fee for membership, and forward the same to the treasurer of the county society.

Resolved, That the township committees report to and deposit with the treasurer of the county society the amounts raised by them for the benefit of this society in the several townships, on or before the first Monday of October, in each year, and that said treasurer be authorized to apply to the board of supervisors at their annual meeting in each year, in behalf this society, for the benefit of an act entitled "An act for the encouragement of agriculture, manufactures and the mechanic arts," approved March 16th, 1849.

Resolved, That the president of this society be requested to invite Warren Isham, Esq., to address the citizens of this county on the 20th of September next, at the court house in Cassopolis, upon the subject of agriculture and its kindred arts.

Resolved, That the recording secretary, cause the proceedings of this meeting to be published in the Cass county Advocate, and that a copy thereof be forwarded to each officer of the society.

Resolved, That the thanks of this society are due, and the same

are tendered to E. S. Smith, Esq., for publishing the call of this meeting and for the other valuable services.

On motion, the Society adjourned to meet again on the second Monday of February next.

JUSTUS GAGE, *Ch'n.*

G. B. TURNER, *Sec'y.*
August 17th, 1850.

CONSTITUTION OF THE CASS COUNTY AGRICULTURAL SOCIETY.

Article 1. The name of this society be the "Cass County Agricnltural Society," and its objects shall be to promote the improvement of agriculture, and domestic manufactures throughout the county, and shall be auxiliary to the Michigan State Agricultural Society.

Art. 2. The officers of this society shall consist of a president, fifteen vice presidents. one in each town, who shall constitute an executive committee; a recording secretary, corresponding secretary, treasurer and township committee, consisting of two in each township, whose duty it shall be to solicit members and otherwise forward the interests of the society.

Art. 3. The duties of the president, vice presidents, recording and corresponding secretaries shall be such as usually pertain to their respective offices.

Art. 4. The treasurer shall receive and keep an accurate account of all moneys belonging to this society, and shall pay out only on the order of a majority of the executive committee; and at each annual meeting of the society, and at such other times as the executive committee may require, shall make a full report of its financial transactions and condition.

Art. 5. The executive committee shall determine the time and place of holding each fair of the society. The regular annual meeting of the executive committee shall be held at such time and place, in the month of December, as they may deem proper. The regular annual meeting of the society shall be held on the second Monday of February in each year.

Art. 6. The Executive committee or a majority of them shall direct the money appropriations of the society, control its property, make the necessary preparations for the annual fair, issue all public notices in relation thereto, or to the general objects of the society; prepare the necessary by-laws of the society, and at the expiration of its term of service, make a full report of its proceedings. It shall be competent for the committee or a majority of them to appoint a chairman and secretary, who shall transact all such business as they may be authorized to do by said committee; and said secretary shall sign, and the chairman countersign all orders on the treasurer for the payment of money directed by said committee, to be paid for any purpose; and said secretary shall keep an accurate account of all moneys so drawn.

Art. 7. It shall be the duty of the executive committee, annually to regulate and award premiums on such articles, productions, and improvements as they may deem best calculated to promote the agricultural and manufacturing interests of the county, having reference to the most economical or profitable mode in raising the crop, or stock, or in the fabrication of the article offered for premium: Provided, That before any premium shall be delivered, the person to whom it was awarded shall deliver to the president of the society, in writing, an accurate statement, verified in such manner as the executive committee may direct, of the character of the soil, and the process of preparing it, including the quantity and quality of the manure applied in raising the crop, or the kind and quality of the food in feeding the animal, as the case may be; also the kind and cost of labor employed, and the total expense, and total product of the crop, or the increase of value of the animal, with a view of showing accurately the exact resulting profits.

Art. 8. The president, vice presidents, recording and corresponding secretaries, and treasurer, shall meet annually, at such time and place in the month of January of each year, as they may select, and shall prepare a report of the transactions of the society during the year, embracing such statistical information in relation to experiments, cultivation and improvements, as may exhibit the condition of the agricultural interests in the county, and shall furnish a copy of such report, to be placed on file for the use of the society and officers, who may have occasion to refer to it for information or publication

Art. 9. Any person may become a member of the Cass County Agricultural Society, for one year, by paying into the treasury the sum of fifty cents, and may continue a member thereafter by paying fifty cents per annum.

Art. 10. No officer of the society shall receive any compensation for his services, nor shall this constitution be altered, except by a vote of two-thirds of the members present at an annual meeting of the society.

OFFICERS OF THE CASS COUNTY AGRICULTURAL SOCIETY, FOR THE ENSUING YEAR.

President—Justus Gage, Wayne township.

Vice Presidents—Henry McQuaigg, Marcellus; Hubbel Warner, Volinia; John S. Gage, Wayne; Charles F. Hennington, Silver Creek; Wm. Clyburn, Pokagon; Daniel W. Jewell, Lagrange; Henry Jones, Penn; Wm. D. Easton, Newburgh; George Meacham, Porter; Wm. Allen, Mason; Joel East, Calvin; Marcus Sherill, Jefferson; E. C. Smith, Howard; Wm. H. Bacon, Ontwa; Oliver Drew, Milton.

Treasurer—Joseph Smith, Jefferson.

Secretary—G. B. Turner, Lagrange.

Corresponding Secretary—E. S. Smith, Lagrange.

Town Committees—Marcellus: E. Coff, John Huyck.

Wayne—Philo B. White, Gideon Allen.

Silver Creek—Daniel Blish, Sullivan Treat.

Pokagon—Josiah Silver, Lewis Edwards.

Lagrange—Boyd W. Philips, Jessee G. Beeson.

Penn—Isaac James, Alpheus Ireland.

Newburgh—Ira Warner, Joshua B. Corey.

Porter—Oscar N. Long, Wm. R. Merrit.

Calvin—Levi D. Norton, Josiah Osborn.

Jefferson—W. G. Beckwith, Pleasant Norton.

Howard—Oscar Jones, Wm. Doane.

Milton—Edward Shannahan, Henry Aldrich.

Ontwa—Cyrus Bacon, James B. Cooper.

Mason—Heman Redfield, A. D. Goddard.

Genesee County Agricultural Society.

J. C. Holmes, Esq., *Sec. M. S. Ag. Soc.*

Dear Sir:—In compliance with your request I send you the following report of the proceedings of the Genesee County Agricultural Society, for the year 1850.

At a meeting of farmers of the county of Genesee, held in pursuance of previous notice, at the Court House in Flint, on the 12th day of January, 1850, Hon. J. R. Smith was called to the chair, and Hon. E. Walkley was appointed secretary.

On motion of J. Begole, it was

Resolved, That a committee of five be appointed by the President, whose duty it shall be to report at an adjourned meeting, a constitution and by-laws for the organization &c. of an Agricultural Society for the county of Genesee.

Josiah Begole, Benjamin Pearson, Thomas B. W. Stockton, Jonathan Dayton and D. N. Montague were appointed said committee.

The meeting then adjourned to the second Wednesday of February [then] next, at the same place.

In pursuance of the adjournment, a large number of farmers of the county of Genesee met at the Court House in Flint, on the 13th day of February, 1850, and the officers of the former meeting not being present, R. B. Perry was called to the chair, and J. L. Gage appointed secretary.

T. B. W. Stockton, from the committee appointed for that purpose at the preceding meeting, reported a draft of a constitution, which, after being amended, was adopted.

The meeting then adjourned *sine die.*

At a meeting of the executive committee, held on the 19th February, 1850, a code of by-laws was adopted in pursuance of the 14th section of the constitution.

At a meeting of the executive committee, held on the 12th of March, 1850, a list of premiums was agreed upon, to be awarded at the first annual Fair of the Genesee County Agricultural Society.

At a meeting of the executive committee on the 13th day of Sep-

tember, 1850, Article 3d of the by-laws was so amended as to permit the exhibition of articles for premiums without any previous entry or notice. J. B. Walker having resigned the office of recording secretary, on account of ill health, Levi Walker was appointed to fill the vacancy.

The first annual Fair of this Society was held at the village of Flint, on the 2d and 3d days of October, 1850. The annual address was delivered by Lieut. Gov. Wm. M. Fenton. Some spirited remarks were also made by Warren Isham, editor of the Michigan Farmer.

The attendance at the Fair, the exhibition of property, the quality of the property, and the general interest manifested by the the farmers, mechanics and others in attendance, far exceeded the most sanguine expectations. The attendance was large, and 334 articles were exhibited for premiums, by 243 individuals.

All which is respectfully submitted.

L. WALKER,
Recording Secretary.

FLINT, December 27, 1850.

CONSTITUTION OF THE GENESEE COUNTY AGRICULTURAL SOCIETY.

Sec. 1. This society shall be called the Genesee County Agricultural Society, auxiliary to the Michigan State Agricultural Society; and its object shall be to promote Agriculture, Horticulture, Household and Mechanical Arts, in Genesee county, Michigan.

Sec. 2. Any person, a resident of this county, may become a member of this society, by signing this constitution and paying fifty cents to the treasurer thereof; and he shall thereafter pay fifty cents, on or before the first day of September of each year, so long as he shall continue a member.

Sec. 3. The officers of this society shall consist of a President, one Vice President in each town in the county, a Recording and Corresponding Secretary, and a Treasurer; those officers to be elected by a majority of votes (by ballot) at the annual meetings of the society, and to hold for one year, or until others are elected in their

place, except the first, who shall be elected on the adoption of this constitution, and hold their offices until the first annual meeting.

Sec. 4. There shall be an Executive Committee, to consist of the President and Recording Secretary of this society, and five persons; these five persons to be elected in the same manner, and at the same time as set forth in Sec. 3, for electing the other officers.

Sec. 5. It shall be the duty of the executive committee, five of whom shall constitute a quorum, to exercise a general supervision over the affairs of the society—to appropriate the funds of the same in such manner as shall in their judgment, best subserve the interests and forward the objects of the society—to call special meetings—to appoint committees—to award premiums and determine all matters connected therewith, to distribute seeds, plants, books, &c., received for the society, and to hold the annual fair or exhibition, and to make all necessary preparations therefor.

Sec. 6. The president, or in his absence, one of the vice presidents, as the members present may select, shall preside at all the meetings of the society. If the president be absent from any meeting of the executive committee, the members present thereof, shall appoint one of their number to act *pro tem.*

Sec. 7. The corresponding secretary shall, under the direction of the executive committee, receive and answer all communications addressed to the society, or any of its officers.

Sec. 8 The recording secretary shall keep a record of the members of the society, and of its proceedings; he shall also be secretary of the executive committee, and keep a record of their proceedings; and he shall perform such other duties as the executive committee may from time to time assign him.

Sec. 9. The treasurer shall receive all the moneys of the society, and expend the same only by the direction of the executive committee, on the order of the president, countersigned by the recording secretary; he shall keep a correct account of the receipts and expenditures, and make a written report at each annual meeting of the society, of his affairs as treasurer; he shall give bond for the faithful performance of his duties, in such penalty and with such security as the executive committee may require.

Sec. 10. The executive committee shall have power to fill all va-

cancies in the offices of the society, and the persons thus appointed shall hold their offices until the next annual meeting.

Sec. 11. No person, but a resident of this county, and who has been a member of the society for twenty days before any fair or exhibition held by the society, shall compete for premiums.

Sec. 12. This society shall hold its annual meeting for the election of officers, on the second Wednesday in January in each year.

Sec. 13. There shall be an annual fair and general exhibition of agricultural and horticultural products, including new and useful improvements in husbandry, at which time there shall be a ploughing match, and a distribution of the premiums; said fair to be holden on the first Wednesday and Thursday of October, in each year.

Sec. 14. It shall be the duty of the executive committee to adopt a code of by-laws, and publish them with the constitution, for the benefit of the society; and on or before the first day of April in each year, they shall give due notice, either written or printed, to each town in the county, on what articles premiums shall be given, and the conditions whereon the same shall become due.

Sec. 15. This constitution may be altered or amended at any annual meeting of the society, by a vote (by ballot,) of two-thirds of all the members present.

BY-LAWS OF THE GENESEE COUNTY AGRICULTURAL SOCIETY.

Article 1. The executive committee shall prescribe the rules and regulations to be observed at all fairs and exhibitions. and the place of holding the same, and shall annually appoint a marshal by the first day of August, whose duty it shall be to cause suitable pens or enclosures to be provided for the reception of stock offered for premiums. He shall take charge of such pens, &c., and assign each animal and product its proper place on days of exhibition; he shall keep a list of such animals and products, with such information in relation to each as may be communicated to him by the recording secretary, for the inspection of the viewing committees; he may appoint all necessary assistants, with the same duties subject to himself.

Art. 2. No animals or other product shall be entitled to a premium, but such as actually belong to and are bonafide, the property of members whose subscription shall have been paid up to that time.

Art. 3. Applicants for premiums, shall give to the recording secretary, twenty days previous to each fair, written statements relative to the article to be exhibited, and shall furnish such evidence by affidavit or otherwise, as the executive committee may require.

Art. 4. Each viewing committee shall consist of three persons, appointed by the executive committee.

Art. 5. It shall be the duty of the executive committee, at a suitable period preceding each fair, to select such viewing committees, and the corresponding secretary shall notify each individual of his appointment, and obtain and report his answer thereto. Vacancies may be supplied by the executive committee on or preeeding the day of the fair.

Art. 6. No member of any viewing committee shall, prior to their awards, ask or receive from any person information touching animals or products exhibited, except from the marshal or his assistants; nor shall the marshal or his assistants, prior to such awards, communicate to the committees in any case, the names of the owners of such animals or products.

Art. 7. The viewing committees shall be attended to the pens by the marshal and his assistants, and any owner of stock or products, who shall communicate or cause to be communicated his ownership, or in any way attempt to influence the decision of the committees, shall forfeit all claim to a premium. Any member of the society, who shall be guilty in like manner, even though not interested in the decision of the committees, shall be expelled from the society. Any member who shall refuse to obey the marshal, when he the said marshal is acting within the sphere of his duty, or shall resist him in the execution of his duties, shall be expelled from the society.

Art. 8. All reports of viewing committees shall be made in writing and signed by the members of the committees assenting thereto, and premiums shall be conferred on the award of the majority of any such committee. All awards of money shall be accompanied by a certificate signed by the president and recording secretary.

Art. 9. It shall be the duty of the viewing committee on differ-

ent kinds of live stock, to give the preference to animals possessing the greatest combination of those points or properties which constitute the most profitable animals, regard not being had to color, nor exclusively to size and condition.

Art. 10. No premium shall be delivered without a competition, unless the viewing committee shall deem the animal or product exhibited highly meritorious; nor shall premiums be given in cases where there is competition, unless the viewing committee shall consider the animals or products worthy of the same.

Art. 11. No premiums shall be delivered but to the person to whom it is awarded, who shall forfeit the same if not present to receive it on the day of exhibition, unless in case of sickness, or for other unavoidable reasons, to be determined by the executive committee.

Art. 12. No object presented for competion shall be entitled to receive more than one premium.

Art. 13. The executive committee shall, at each annual meeting of the society, make a report in writing, of the general condition of the agriculture, horticulture and manufactures in the county, a copy of which report shall be forwarded by the corresponding secretary to the recording secretary of the State Society, on or before December 20th, in each year.

Art. 14. The executive committee shall have the power and it shall be their duty to expel any member upon satisfactory evidence, for any violation of article 7th of these by-laws.

Art. 15. These by-laws may be altered or amended at any meeting of the executive committee, by a majority of the members there present, voting so to do.

OFFICERS OF THE GENESEE AGRICULTURAL SOCIETY.

President—Hon. J. R. Smith, of Grand Blanc.

Vice Presidents—Dr. Gale, of Atlas; Isaac Middlesworth, of Argetine; Alfred Pond, of Clayton; Daniel Dayton, of Davison; Geo. W. Piper, of Forrest; James Hosie, of Flushing; B. Pearson, of Flint; Wm. Tanner, of Fenton; E. Fletcher, of Gaines; Daniel H. Seely, of Genesee; R. B. Perry, of Grand Blanc; John Farquaharson, of Montrose; John Richards, of Mundy; Garret Zufelt, of Richfield; Richard Buel, of Thetford; Daniel Montague, of Vienna.

Recording Secretary—James B. Walker, of Flint.

Corresponding Secretary—George M. Dewey, of Flint.

Treasurer—Augustus St. Amand, of Flint.

Executive Committee—Jonathan Dayton, of Grand Blanc; C. D. W. Gibson, of Grand Blanc; John L. Gage, of Flint; C. N. Beecher, of Genesee; Peabody Pratt, of Flint.

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REPORT.

The Genesee county Fair was well attended on the second and third days of October, 1850. Owing to the inexperience of those engaged, and the want of suitable arrangements for that purpose—the report of the proceedings is necessarily imperfect—and the several committees as well as the officers of the society, ask the indulgence cnd pardon of the public and those interested, for many inaccuracies which will inevitably find their way into the report. It is the *first attempt*—at another Fair, a more systematic plan of operations may be expected.

PREMIUMS AWARDED.

CATTLE.

Bull, 3 years old and over; 1st premium, James Hosen, 2d Horace Bristol.

Bull, 2 years old; 1st premium, —— Stewart, 2d Thomas Wolfret, 3d Martin Davison.

Bull, 1 year old; 1st premium, Emer Woodin, 2d Grover Vinton.

Bull calf; 1st premium, C. D. W. Gibson, 2d L. G. Buckingham, 3d E. B. Dewey.

Cow, 3 years old and over; 1st premium, R. B. Perry, 2d G. M. Dewey, 3d W. R. Scovill.

Heifer, 2 years old; 1st premium, Wm. Eckley, 2d Daniel Curtis.

Heifer, 1 year old; 1st premium, Henry Schram, 2d Henry Schram, 3d David Watson.

Heifer Calf; Grover Vinton.

Yoke working oxen; 1st premium, Wm. Tanner, 2d G. Pierson, 3d G. Waters.

Yoke steers, 3 years old; T. Frost.

HORSES.

Stallion, 4 years old and over; John Hamilton.

" 2 years old; 1st premium, Hiram Russell, 2d E. M. Miller.

" 1 year old; 1st premium, J. C. Atherton, 2d Alexander Graham.

Breeding mare; 1st premium, Wm. Barnhart, 2d J. C. Atherton.

Matched colts; 1st premium, J. C. Atherton, 2d Jonathan Dayton.

Geldings; 1st premium, Anson Gilbert, 2d D. H. Seeley.

Mare, 3 years old; 1st premium, Lewis Cumings, 2d Manly Miles, jr.

" 2 years old; 1st premium, A. Crasper, 2d A. Butterfield.

" 1 year old; C. S. Thompson.

Sucking colt; 1st premium, John Van Tine, 2d Eber Adams.

SHEEP.

Fine wool Buck, 2 years old and over; 1st premium, E. G. Gale, 2d —— Bingham, 3d Charles Bates.

Fine wool Buck, under 2 years old; 1st premium, —— Bingham, 2d E. G. Gale.

Pen five ewes; E. G. Gale.

Pen five buck lambs; Jonathan Dayton.

Pen five ewe lambs; Jonathan Dayton.

SWINE.

Sow and pigs; G. Decker.

Litter of pigs, P. Witherell.

POULTRY.

Cock and hens; G. Buckingham.

Lot poultry; Mesdames Stockton and Payne.

Lot turkeys; Mrs. E. Storer.

FARMING IMPLEMENTS.

One cheese safe; C. H. Rockwood.

One fanning mill; C. H. Rockwood.

One single plow; R. B. Perry.

One double plow; E. Rockafellow.

Twelve corn brooms; Luther Dickinson.

PLOWING MATCH.

With horses; Horace Briston.

SUNDRIES.

Lot butter; 1st premium, Mrs. Sawyer, 2d Mrs. Warner Lake, 3d Mrs. P. Witherell.

Window sash; B. F. Warner.

Horse shoes; David Watson.

Barrel flour; 1st premium, Hamilton, Rosevelt & Co., 2d, E. & R. Goodrich.

Flour barrel; Josephus Jones.

Cheese, one year old; Wm. Pearson.

Cheese, under one year old; 1st premium, R. B. Perry, 2d, G. Vinton.

Maple sugar; Henry Schram.

DOMESTIC MANUFACTURES.

Woolen carpeting; Samuel Curtis.

Rag carpeting; Mrs. E. K. Carrier.

Hearth rug; S. C. Owen.

Woolen socks; Miss Sawyer.

Cotton stockings; Miss Jane Gage, [nine years old.]

Worked quilt; 1st premium, Mrs. H. I. Higgins, 2d, Mrs. Ingersoll.

White quilt; Misses Sawyer.

WORSTED AND FANCY WORK.

Portfolios; 1st premium, Miss Stewart, 2d, Miss Bailey, 3d, Miss Dayton.

Worsted shawl; Miss Atherton.

Wax flowers; Miss Miles.

Ornamental needle work; Misses Sawyer.

Worked Ottomans; Mrs. Payne.

Fancy needle work; little girls' society.

Card basket; Miss E. B. Lewis.

Satchel; Mrs. Witherell.

Hat; Mrs. William Knowles.

Purse; Mrs. Walker.

Watch case; Mrs. Walker.

Embroidered skirt; Mrs. Warner Lake.

FINE ARTS.

Pencil drawings; Mrs. Crocker.

Crayton drawings; Miss A. E. Robinson.

Oil painting; Miss Cornelia Miles.

Lot of oil paintings; Miss Parsons. [Not entered for premium.]

PLANTS.

Green house plants; Mrs. Page.

One year's growth Orleander; Miss Mary Pratt.

FRUITS.

Ten varieties of table apple; A. C. Bliss.

Six varieties of winter apples; C. S. Thompson.

Basket peaches; A. St. Amand.

Basket quinces; H. I. Higgins.

Most extensive collection of grapes; David D. Young.

One basket of Isabella grapes; Mrs. Stage.

Isabella and Catawba grapes; Harlow Whittelsey.

Best specimen of apples, Norris Thorp.

Lot of apples; B. Pearson, A. Donaldson, Wm. Witherell, J. Hosea, J. B. McOmber.

VEGETABLES.

Drum head cabbage; Benjamin Pearson.

Cauliflower; R. B. Perry.

Basket of vegetables; E. K. Carrier.

Celery; A. St. Amand.

Potatoes; 1st premium, (pinkeyes) David Watson; 2d, Wm. Pearson.

Squash; 1st premium, G. M. Dewey; 2d, R. W. Lewis.

Carrots; R. W, Dullam.

Variety of vegetables; B. P. Foster.

Rota Bagas; R. W. Dullam.

Blood beets, do

Tomatoes, do

Brocoli; B. Pearson.

FIELD CROPS.

Crop of winter wheat; 1st premium, A. Crasper, (49 35-60 bushels to an acre,) 2d, R. B. Perry, (47 bushels to an acre.)

One dozen ears of corn; 1st premium, G. Zufelt, 2d, G. Buckingham.

MISCELLANEOUS.

Cook stove, "New World;" E. H. Hazelton & Co.

Parlor stove; H. I. Higgins.

Coffee Filter; E. H. Hazelton & Co.

Wooden ware—pails, tubs, &c.; A. Griffes.

Single harness; Miles Gazley.

Trunk; Miles Gazley.
Fine boots; Wm. Patterson.
Coarse boots; do
Buckskin Gloves; David Mather.
Buckskin mittens; do
Ornamental painting on stage wagon; E. A. Birdsall.
Spinning wheel; Mrs. L. Harris.

CABINET WARE.

Bureaus, &c.; Frederick Holmes.
Lot; Wm. Miller.

REPORT OF THE EXECUTIVE COMMITTEE OF THE GENESEE COUNTY AGRICULTURAL SOCIETY.

On the 2d and 3d inst., according to announcement, our fair took place. The ground selected for the occasion was admirably situated, and the arrangements as well adapted for the convenince and comfort of the numerous visitors as could be possibly expected. The weather was beautiful; the articles exhibited were numerous and well arranged. The officers of the society exerted themselves for the comfort and convenience of the visitors, and the awarders of the premiums gave their decisions in an impartial and unbiased manner; thereby giving satisfaction to the numerous aspirants and competitors for the prizes in the various branches of their respective employments. On the first day, the Hon. Wm. M. Fenton delivered an address upon the nature and advantages that must result in the cordial co-operation of his fellow citizens in keeping up with zeal, a society like this—illustrating in an apt and sound manner the benefit that the community, collectively, as well as individually, must reap from a society like this, whose object is to impart knowledge and information to their fellow men, in all the various branches of science, by which much drudgery and labor will be saved and their productions be of the highest order and usefulness.

This fair, being our first attempt, it may not be improper to make a few general remarks, and in thus trespassing upon our readers, we shall observe that the gentlemen who have organized this society, deserve well of their fellow man, for every man deserves well of his

country, who contributes to the welfare of his fellow creatures, not only in words but in deeds, and the present generation, as well as the future, will have reason to feel grateful for the philanthropic exertions of those who have started a means by which human happiness and benefit can be increased, and this too, without pecuniary expense, but solely by industry and reciprocating information and knowledge obtained by occular demonstration. There are gems implanted in every human mind, which, lying dormant, without culture, is non-productive, but which, when cultivated, will produce astonishing results. As it is in the vegetable kingdom, so it is in the animal; for the human intellect without education, is only animality; and to illustrate this position more plainly, let us look at what has been done in the vegetable world by cultivating the human mind, in producing the varieties of delicious fruits and vegetables, which in their natural state, would scarcely be regarded as of the least value. Our plums are the cultivated descendents of the sloe; the peach and nectarine of the common Almond tree; Filberts are the improvements of the wild hazel; the delicious apple, whose species may now be reckoned by hundreds, are the cultivated successors of the small austere crab and wildings which swine will scarcely eat; the original pear is a petty fruit, as hard and crude; our corn was once in a state like grass; our cauliflowers, cabbages, and other domestic vegetables, are the products of artificial human skill and vegetable improvability. The potatoe, a native of South America, discovered in the beginning of the 17th century, of such a character as to be useless as human food, are by means of cultivation found to be only second to wheat in furnishing a nutritive food for the human family. Even the proportion as to the quantity of nutritive food in either, turns to the advantage of the potatoe; for upon good authority an acre of land will produce 2700 lbs. of flour from potatoes, but in wheat only 1300 lbs.; thus the same extent of ground produces in the potatoe, twice the quantity of nutritious aliment to that of wheat. The ancients took considerable pleasure in observing the kindred nature of all plants, which is surprisingly shown by the power and effect of their growing and fructifying when grafted on each other. "Plutarch mentions that of an olive upon a juniper, a peach upon a myrtle, pears upon an oak, apples upon a plane." In our times a peach up-

on a mulberry, and a rose upon an orange, and the various other graftings so numerous as to need no mentioning. From all which it appears that the vegetable kingdom was manifestly designed and framed by an All-Wise Providence, on the principle of improvability, from the cultivated intellect of the human family, accompanied with patience, perseverence, industry and observation.

Having thus attempted to illustrate the practical effects, resulting from cultivating of the intellect in producing the comforts and plenty which an all-abundant nature furnishes us, we cannot too zealously support, encourage and perpetuate a society which has been organized for the benefit of our fellow men. And when in viewing the great variety and splendid productions which were exhibited at our first fair, we have good reason to rejoice and antiicpate in the future, that the articles which will be sent for exhibition, will vie with the productions of any other State in the Union—thus creating a virtuous emulation in our fellow-citizens, to go on doing all the good in their power, and at the same time increasing their own prosperity, happiness and comfort. It is unnecessary to particularize any of the productions shown, as they were all of the very first character, and we hope it will not be considered invidious to say, that the apples, most certainly, were of a quality to contend for any premium, not only in the United States, but in the whole world. Also the potatoes were most excellent and good specimens of what the Genesee agriculturist can do, if he will only try. The ploughing match was also of the first character, making it a difficult task in awarding the premium. It must also be observed that the greatest order, harmony, and good humor prevailed during the whole of the show; not a single squabble or quarrel took place, thereby showing in so large a collection of well behaved people, that a high moral feeling pervaded the whole throng, and that they, one and all, are determined to support the high character they have attained as developed in this, our first agricultural fair.

Flint, Oct. 10, 1850.

Grand River Valley Agricultural Society.

GRAND RAPIDS, Jan. 11, 1851.

I have been requested to give you a brief statement of the affairs of the Grand River Valley Agricultural Society. I might have done so ere this, but for the reason that there has been, and is now, another change making of the name of this society. It was first formed by the town of Walker, in this county, as a town society, and was known by that name; after one year's operation as the Walker agriculture society, it was changed to that of the Grand River Valley agricultural society, by which name it has been in operation two years. Within the last year, the counties of Ottowa and Ionia have each of them formed societies in their respective counties, thereby rendering the name of our society inappropriate. As there are now three societies in this valley it has been thought expedient to again change the name and organize under its new name the Kent county agricultural society, by which name it will most likely be known, which is now in process of being remodled. Under its first name an annual fair was held in the town of Walker. The display was not large as it was only a town society. The following year the annual fair was held at this place, which was very creditable to the society, not very large, yet an improvement on their first fair. The Rev. Jas. Ballard delivered a very excellent address before the society on this occasion, which I think had a very good effect upon its members.

The past season their annual fair was also held at this place. The articles for exhibition were not so numerous as I could have wished, yet considerably larger than at former fairs, showing a steady improvement. There was quite a display of fancy articles which would have received premiums had there been no lack of funds. The stock exhibited was decidedly an improvement on that exhibited at any former fair, and the two last fairs were very well attended. The Rev. Mr. Weller delivered an address before the society at the holding of their last annual fair.

At the annual meeting of this society held on the 6th inst., (which

is the time of awarding premiums on grain crops,) Solomon Wright, Jr., had awarded to him the first premium on wheat. He raised on five acres, 212½ bushels of first rate wheat being 42½ bushels to the acre.

The officers elected at the last annual meeting to preside over the interests of this society for the coming year, are as follows: President, Geo. Youngs; 1st Vice President, J. F. Chubb; 2nd Vice President, William A. Richmond; Treasurer, A. Loomis; Secretary, Damon Hatch; Executive Committee, Solomon Wright, Jr., D. Schermerhorn, O. H. Foot, John M. Fox and Henry Childs.

The above is a short sketch of the situation of this society, and with the enterprize which our western farmers possess, may we not look forward to a result that will be interesting and profitable?

There is nothing to discourage but every thing to encourage. Look at the interest taken generally in our county and state fairs—see the spirit of rivalry that is abroad, not only in this, but in every agricultural or mechanical community. Look at the immense preparations making to attend the world's fair in London, and the display of articles from every portion of the globe that will there be exhibited, and we may form some little idea of the vast and wide spread interest taken not only by the male part of community, but by the female part also. These are demonstrations that cannot fail to bring about a grand result, and one which cannot be mistaken.

The above is respectfully submitted.

Very respectfully yours,

DAMON HATCH, Sec'y.

Address delivered before the Grand River Valley Agricultural Society, Oct. 15th, 1850.

BY REV. H. S. WELLER.

The gatherings of a people afford a pretty good indication of their general tastes and character. The gladiatorial spectacles of the Romans tell a truer tale of the real prevailing state of the people, than all the labored eulogiums or parti-colored facts, of statesman or historian. You see there a living picture of the engrossing passions of a turbulent and ferocious race, exulting in scenes of the bloodiest horrors, gloating over the flesh quivering agonies of human victims, and drinking in, as the sweetest music, the shrieks, and cries and groans of expiring slaves or criminals, torn into fragments by wild beasts. To gather a people together, you must provide something that ministers to their prevailing and ruling loves. The bull fights of the Spaniards, and till very recently, the bull baits of the English, are and were national pastimes, showing forth national tastes and feelings. Montebanks and men to be hung, formed, at one time, the staple amusements of the mass of the people. Tragedy and comedy, cruelty and foolery, something to make people laugh or cry was needed, to draw them together. But when you can raise a gathering for higher purposes than mere excitement of the passions, there is, at least, a movement towards a better condition. And when, moreover, that purpose is one of growth and development, nursing-culture and life-giving employment, the movement is in a right direction. Too long have the destroying arts borne sway over the world. It is high time that they should give place to the arts of production. Raise, cultivate, produce—this is the part of a true man, and assimilates him to the Creator, for production is relative creation.

We may therefore look upon the present gathering as a sure indication of the progress of society—that men are awakening to their true interests, and seeking to *add* to life, instead of encouraging the destroyer, or frittering away the short period of mortal existence, in foolish, unmeaning, and unproductive amusements. Not that amuse-

ments are either wrong or useless in their place; but when you see the fooleries of a clown call together a whole county, one cannot help thinking that there is a sad want of varied life in the mass of a people that can so eagerly catch at every chance of being amused.

And here, in the otuset, to come at once to the practical bearings of our subject, which of course, is agriculture, let us analyze the much-talked of independence of a farmer's life. I have some practical acquaintance both with farming and farmers, acquired in a 12 year's residence in this State, my previous life having been partially devoted to commercial, but mainly to literary and religious pursuits, so that I may claim a variety of experience acquired in both hemispheres of the globe, to which few can lay claim, and which may give some weight to the truths I intend to utter. And I forewarn you that you may hear some scathing, searching truths; for I do not stand here to flatter any man, or any profession, but to speak that which may arouse you to thought, and thence to action. It is the common burthen of all agricultural addresses, the independence of the farmer; but where it exists, in fact, is a difficult matter to determine. That agriculture may become the most independent, or at least, equally as independent as any other employment, is not doubted; but in this, as in all other professions, it is the men that ennoble and render independent the profession, not the profession the men. The noblest of all pursuits may be reduced to the meanest, when mean and ignorant men take hold of it; and it is because the tillage of the soil was for so many ages left to serfs and slaves and bondsmen, that such labor has acquired a low character. And all the while ignorant and uncultivated minds, slaves to passion or prejudice, or self-willed ignorance, are associated with the plow, the plow will suffer in character from the contamination.

It is a fallacy to speak of any profession as independent, for all professions belong to social life, and the very perfection of social life is the connection and independence of one part upon another. And it is the very want of this connection and dependence that has kept the farmer isolated and alone in his glory of antiquated opinions and practices. He has not kept pace with the knowledge of the times, but has rather disjoined himself from the car of progress, and suffered its chariot-wheels to roll away out of his sight. Hence, agri-

culture has stood comparatively still, while all other branches of art and industry, hanging together, and assisting each other, have made rapid advances.

If, by independence is meant standing aloof from the intelligence and science of the age—becoming alien to its enterprise and spirit of improvement—cutting off the refinements and enjoyments of cultivated society—the independence of a hog on the ice, or in the sty, we will readily grant it to those who make the claim, with all its honors. But for any other kind of independence, except in rare instances, my experience has been at fault in discovering. The larger portion of the farmers of this State have generally been the most dependant of all classes—their labor, and in many instances, their farms sold, pledged or mortgaged to the mercantile interest; a species of slavery in which the mind participates with the body, harrassing to the one, as well as exhausting to the other. But I do fervently hope and believe that this kind of dependence is passing away, and that as a class, the farmers are getting out of debt, and as a consequence, are in better heart and courage.

But the slavery to which I would call your attention is of a far deeper and more grievous character than the outward bonds of servitude, either to credifor or master. It is the servile attachments to wilful ignorance and stubborn prejudices; and, worse yet, the slavery of bad habits and careless, wasteful indolence. To be slaves to one's own narrow willed ways is the most hopeless of all slavery. Men will fight to free themselves from bondage to others, but who will fight against their own darling vices? None will do it willingly; but we may be thankful that there are causes constantly in operation to compel men to arouse to thought and action. There are penalties attached to every bad habit and false way of life which, sooner or later, brings the offender either to reform, or carries him off from combering the fair face of creation.

The immense amount of hard toil and drudgery incurred by ignorance is beyond all calculation. First, an ignorance of the nature of plants—vegetable physiology; and, secondly, an ignorance of the nature of soil—their chemical properties—renders one-half, if not two-thirds of the labor of farming unproductive. Every species of grass or grain requires peculiar ingredients in the soil to nourish and perfect

it; and for want of knowing what are these essential requisites, many a farmer successively crops with wheat, till, having exhausted all the wheat-growing properties, he is rewarded with a glorious crop of chess. Others, habitually put their various crops exactly on the wrong spot, supposing the farm to have a variety of soils, and are rewarded with one-half or a third of crop. But the most amusing freak of ignorance is persisting in growing wheat whether the peculiar soil of the farm is fit for it or not. It would seem to be the feeling of all who come to Michigan that, as they were induced to come here from the repulation of the State being a "wheat-growing State," that wheat they will grow, *any how*. Says a farmer to me, some six or seven years ago, when I asked him how much wheat he grew this year? "Oh," says he, "it didn't turn out much this year; I didn't put much in; but next year I mean to have a crop, for I shall put in 60 or 80 acres." And, sure enough, he got in about 60 acres, and got considerably in debt on the strength of it; but, when harvest came, a great part was not worth cutting, and the remainder barely paid the expense of gathering. Now, this man worked like a galley slave in order to pay the taxes of ignorance. He was a perfect specimen of a self-willed ignorant man; and an ignorant self-will is a harder task-master than any southern planter or slave holder.

For want of knowing something about the structure and habits of plants, a vast amount of labor is often thrown away upon a quarter crop, when a little deeper plowing would have produced, if not a full, something more than a half crop. It is well known that the roots of all plants send out minute fibres, feeling around and searching the ground all over for their favorite food. These fibres, as they break off when the root is pulled up, are not seen, and therefore many suppose that the roots extend but a very short distance, and they plow accordingly. I was well acquainted with a farmer who, upon the strength of his own short sight, always plowed shallow for wheat, oats and barley, but deep for corn, because he happened to see some pretty long roots attached to corn stalks. The consequence was, that he invariably had a good crop of corn and a poor crop of all other grains. I witnessed his mode of farming for many years, and never knew him to grow a good piece of wheat except on new ground.

I might go on citing instances from my own knowledge of the slavery imposed on the farmer by his own self-willed ignorance—but as my experience dates back some few years, it may be these things are to be ranked among what has been, not what is. At any rate, I trust Grand River Valley furnishes no such examples of blindness, and as I am but very little acquainted, either with the farms or farmers of this vicinity, none of my remarks can have any personal or particular application to them. We deem it a sad calamity to be afflicted with natural blindness, and why should we not equally deplore mental blindness, that causes so many failures and blunders and entails so much poverty on the community. It is to my apprehension, nonsense to talk of a blind man being independent, and equal nonsense to talk of the independence of ignorance. To be really independent, which, in its true sense, means to have all our just and legitimate wants amply provided for, every man, and every profession, must first be dependent. We must hang together, and learn of each other. Every member of the body-social can or should bring something to the common stock of knowledge or experience, from which all may draw the necessary information for their several vocations.

But this matter of independence, I want to have a little more understood. It is commonly said, that he is independent whose wants are kept within his means. This is the independence of the brute, who, when he gets his fill of food has all he wants. Now this is not the true condition of rational progressive beings. To be a man, every one should be sensibly alive to the true wants of a man. He should look to fill out the whole of his being; for while his wants are circumscribed by the narrow circle of animal life, he is not a man. The varied and endless extent of human endowments point to a constant increase of want and enjoyment—for it is want or desire that produces wealth and enjoyment. And therefore it is not by circumscribing our wants, but by seeking to fill them out by just means, that we become truly independent. Many persons have been in the habit of lamenting the introduction of city taste into the country. Setting aside the false tastes, of which there are too many, both in town and country, I am so far from regretting that farmers' sons and daughters should be bitten with the mania of refinement, that I re-

gard it as the only way of rousing them them to intelligence and progression. In many cases, no doubt, some mischief will ensue by grasping too eagerly and living too fast; but the end will be to introduce improved modes of culture and labor, whereby exhausting toil may be avoided, and increased wealth produced. A man should be something more than the main beam of a plough and a woman should be something more than an appendage to a spinning wheel.

If, then, the desire for silks and broadcloth lead to increased industry and production, a great good will be gained, although linsey-wolsey and sheep's grey might equally answer the purpose of clothing. And although dress is about the first indication of an improved condition, yet it does not stop here. To match a good dress, good manners will be acquired, and as good manners introduces to good society, cultivation of mind must be attended to. For a man or woman seeking good society by mere virtue of a good dress would be like the ass in the lion's skin, betrayed by their braying when they attempted to speak. It is by these means that different classes assimilate together and become equalized. And why should not the farmer be equal to any other class? Why should not his house have a good library, philosophical apparatus, and musical instruments, seeing that his crops buy these things for others? Why should not every farmer's house be a palace, as well as the abodes of merchant princes, whose palaces are built up by the productions of the earth? I think it is time that farmers built their own palaces, but to do this their farms must first become gardens instead of a botched, half cultivated wilderness. And they must grow full crops, and machinery must be introduced, and science must preside over the whole arrangements of our rural domains.

What has elevated our common tradesmen into merchant princes? Intelligence and combination. These are the two magic words that must work out the elevation of the farmer. Little more than half a century ago, the aristocracy of England were jealous of any pretension to refinement or learning on the part of their tradesmen, and would often withdraw their patronage, and seek to crush a man who aspired above his rank. But the movement had commenced, and did not end till it placed the middle class on a par with the aristoc-

racy, in point of intelligence and importance. And the only way the nobility could save themselves was by receiving the most distinguished commoners into their own ranks by new creations of peers.

And now the movement has commenced with the tillers of the soil. Already a goodly number of our farmers are prepared to fill the highest offices of the State. Already a large majority of them fill our legislature, although their influence is yet unequal to their numbers in consequence of their mental sluggishness. These agricultural fairs, aided by a more thorough common school education, will open up the way for a new condition of the laboring classes. Gathering together brightens up the faculties. "As iron sharpeneth iron, so does the countenance of a man his friend." A book on agriculture some years ago was only found in the library of a gentleman farmer—but now agricultural papers are as common as blackberries. All these things are small beginnings. But never mind—the ball is set in motion, and it will roll on, and it will not stop till agriculture, with her toil-worn sons, are brought up to the level of all other professions and classes.

I say to the level, for I am not disposed to set up one class or profession above another. Agriculture may be eminently productive, but the arts which convert the raw productions into suitable forms for use, are equally essential. The merchant who makes exchanges, saves just so much time to the producer; and therefore production is indebted to him as well as to the actual laborer. In vain, also, would the farmer toil, if the protection of law was not thrown around him, to save the fruits of his labor from robbery, and his buildings from the midnignt incendiary. All professions, form a needful part of the body politic. We may, indeed, grant to agriculture, the merit of being the first art of civilized life, for civilization does not commence till men become fixed to the soil. The savage lives by hunting, fishing and gathering the spontaneous productions of the earth. The wandering, pastoral tribes attain at most, a semi-barbarism. But when the soil is claimed and cultivated, it leads on necessarily, to social order. We have, therefore, no hesitation in placing agriculture as the root of the tree of civilization. But were it not for the leaves and bark of the trunk, limbs and branches absorbing and transmitting to the root those atmospheric properties essential to its

life, the root would rot under ground. And just so with the social tree. Agriculture would languish and decay without the arts to which it has given birth. And the reason why it has been at so low an ebb, is because it has partially cut itself off from its thrifty, exuberant limbs and branches, by ignorance and slothfulness of mind.

Farmers, as a class, have been slow to adopt any improvements, and therefore men of genius and invention have bestowed their attention on other branches, where there was intelligence enough to estimate the value, and enterprise enough to adopt and render the invention at once a source of profit to the inventor. In this department, however, a manifest improvement is taking place, and these fairs, by bringing into notice and competition the various implements and machinery of culture, will ultimately effect an entire revolution in their construction. Just as soon as farmers are intelligent enough to appreciate and pay for scientific improvements, science and scientific men will work for them, but not before.

Among farmers themselves, intelligenee and combination, like what obtains in all other departments of life, must become the order of the day. And of this, these agricultural gatherings are beginnings. If a rapid communication between distant places be required to facilitate commerce, commercial men band together, raise supplies, and hire scientific and working men—and lo! the iron track spans and levels the distance, and the iron horse smokes and thunders through the plain. But the farmer, each one isolated and alone in his glory, may be hemmed in with a deep girdle of mud, through which he can with difficulty drag a quarter of a load to market, and no one stir a finger to raise a joint stock company, or any other combination by which plank or railroads, or any other easy means of transit may be established. Instead of knocking at the doors of commercial capitalists, farmers only need knowledge enough to combine together, and make some temporary sacrifices to build their own roads, employ their own engineers, and put all the profits into their own pockets.

But the common notion has been that farmers have nothing to do with these subjects. All that belongs to them is the hard labor of the field, and they are praised for their hardy, hard-fisted, iron-constitutioned endurance of labor. And those who take the farmer's

cause under their condescending patronage, prate about the *dignity* of labor. Out upon such nonsense! What dignity is there in merely drudging all day long between the handles of a plow, (to borrow an expression from a recent address,) foot-sore, and wearied to exhaustion, when the same object can be better attained, seated comfortably, and driving and guiding the labor of animals? Where is the dignity of sweating out one's energies in the reaping and binding labor of the harvest-field, when machinery and brute labor, with guiding and management, will cut your grain, thresh, clean and bag it, ready for market? Who, even now, would regard it as dignified to labor over the threshing floor with a hand-flail, pounding out a few bushels of grain a day? Give to the laboring ox his due, but don't degrade man to his level. Labor is dignified by mind. The more intelligence you put into your work, the more you elevate its character. The old-fashioned matchmaker, with his earthen pipkin and penny's worth of brimstone, and pine shavings, was a poor beggar. But introduce science—let chemistry discover the materials for lucifer lights—a steam engine cut and split the wood, and other contrivances for dipping, boxing and packing, and the matchmaker becomes a respectable and wealthy member of society. We are not apt to look with a wonderful degree of reverence on a man with a pick-axe and shovel, pecking away at a rock; but set the machine, called a Paddy, at work with its pondrous strokes, smashing the huge rock into fragments, and a mammoth shovel, worked also by machinery, scooping up and loading truck cars with the fragments, and we wonder and admire the dignity of mind that thus triumphs over matter.

Depend upon it, those who preach to you above the dignity of labor (by which I mean mere bodily labor,) are very willing to let you have all the dignity to yourselves. They will not soil their finger with the honor; and all they want is to keep you content and satisfied, while they can wheedle you out of your votes or your money. They may cantingly tell you that you are fulfilling the decree of Heaven, in eating bread in the sweat of the brow; but they themselves would rather be excused from the sweating, and would choose the cool and refreshing shades of Eden. Let all such praters be told that the curse can be taken off, and that Paradise may and will be regained just as fast as men learn to know and obey the laws of

their being. A farmer's home and lands may be a Paradise when science and art, with intelligence and sound morality, shall govern all its departments.

Hard, exhausting labor is good neither for body nor mind. It wears out the physical system and draws the nourishment from the brain, leaving it sluggish and torpid. And this is the reason why, in the mass, farmers are not more intelligent. They come in from their work fairly beaten out, and instead of spending their evenings or leisure time in reading or in intellectual conversations or amusements with their families, they doze out their time listlessly in the chimney corner, or kill time by mere gossip. They are not in a condition for any thing like mental labor; and, as a general rule, exhausting labor destroys both the appetite and the ability for mental exertion. There are, of course, exceptions. The Learned Blacksmith, for instance, who mastered most of the known languages of the world, while working at his daily trade; but such cases are very rare. Exercise is indispensable for both body and mind, but it must be pleasant, exhilerating and varied, and not continued to the point of excessive fatigue, in order to be healthful.

I would, therefore, that our farmers should rather be dissatisfied, and seek, by mutual effort, to lighten the toil of their occupations. The more of science that can be mixed up with their avocations, the more is the mind brought into action; and mind and body working together, mutually relieve each other, and neither becomes exhausted. Then, when the field exercise is over, other pursuits and amusements of a social, refreshing nature, will wind up the day's labors and induce a joyous mood of mind and satisfaction of life.

It may be expected here, that I should enter into some details respecting stock, pasturage, raising crops, fencing, plowing, &c., but these topics belong properly to agricultural publications. If you really want to gain information upon these subjects, you will do so by getting books and papers, and reading and digesting the information at your leisure; and if you think that you cannot afford to buy a book or take a paper, put in your plow an inch or two deeper, or stop up a gap in your fence, and you will make enough to buy all the publications you need. And here I would name the Michigan Farmer, published in Detroit, at one dollar a year, the agent for which is Mr. Luther, of this city. None need say they cannot afford to take this

valuable paper, for a single extra cord of wood, brought in during the idle days of winter, will pay the year's expense.

The main object of these gatherings and addresses is, to rouse you into life; and life is the burthen of my song. I would excite you to intellectual life—to filling out the dull routine of duties with the living soul of intelligence and enterprize.

But you say, how can we do more than we have done? The difficulties of settling in a new country, expenses of removal, and clearing and subduing wild land, and want of capital, and worse still, sickness, and debt in consequence. Those bilious fevers and that eternal fever and ague! why, all these things are enough to swamp legions of stout hearts and iron frames. Granted, we are not complaining of what has been done, so much as trying to lead on to something better, now that the skies are brightening and the first difficulties are encountered. We are all ready to do honor to the brave enterprising men who faced the dangers and bore the hardships of first settling in a new country. But after having gained a footing it is well to take breathing time, and see what might have been done better, and how much hardship and suffering might have been avoided, and then to set about repairing the false moves and remedying the evils. It has probably never occurred to you that the greatest of evils to which western settlers are exposed—fevers and agues—are greatly aggravated by the partial clearing and cultivation of their fields. The mass of vegetable substance left to rot on the ground, constantly exhaling putrid and death dealing effluvia, with which the atmosphere becomes charged, if not the main exciting cause, must at least tend to aggravate what are considered the natural diseases of a new western country. My decided impression, however, is that these diseases lie more at the door of human ignorance than in the climate. It is remarkable that before any clearing commences, the country is healthy. Parties of surveyors and engineers have traversed these States when in perfect wildness, and notwithstanding exposure to rains and chills and damps, have kept up an exuberant flow of health and spirits. The reason is, that nature left to herself is full of life. Everywhere a healthy and invigorating progeny of plants and flowers and trees spring up. Decay is overpowered by spontaneous production. But the moment man puts his hand to the

work, he botches the fair creation of God. These clearings, (far better called botchings.) begin with cutting a whole forest of noble trees, by a process called girdling. And there they are left stretching forth their naked, leafless limbs, dropping to pieces by decay—a horrible army of vegetable skeletons, filling the air with their poisonous exhalations. And when at length the lifeless trees are consigned to the fire, there are the stumps left in the ground to continue the work of spreading disease, obstruct the plow, mar the beauty and diminish the products of the field. How would you like to have your fields strewn over with rotten carcasses of animals; and yet rotting vegetable carcasses are in proportion equally pernicious. I have never forgotten a remark I heard many years ago, made by an eminent physician, respecting decayed plants and flowers in a room. "You may as well" said he, "have a corpse in the room." And I have no hesitation in saying that a disintered grave yard would measurably do no more mischief than girdled trees and rotting stumps. The principle of this is so plain also, that any body can understand it. Like produces like, life produces life, decay produces decay. If you want to spoil a barrel of apples, put a few rotten ones among them. And just so everything of a decayed nature affects, more or less, the health of all that surrounds it.

We have too long looked upon disease as a necessary part of our being, and upon fevers and agues as the fixed properties of a new western country. Half a century ago, the suburbs of Edingburgh, in Scotland, was subject to periodical fevers, which the inhabitants, regarded as visitations of Providence. The city authorities compelled them to remove the dung hills from the vicinity of their dwellings and the visitations ceased. In the same way, I have no doubt, a large amount of disease would be avoided, if every decaying substance was consigned to the flames. If you cannot remove these nuisances at once, do it by degrees. Keep your fires always burning where there is decaying matter. This will purify the air. Burn up every lifeless limb and root as fast as you can. Fire is the great purifying as well as life-giving element. The vestal fires and burnt offerings of ancient worship were emblematical of continual purification. Therefore, I say, keep your fires always burning, and never let them go out till they have burnt out all your rotten trees and stumps, and then let

them burn down your log huts, that from their ashes, Phœnix-like, goodly mansions may spring up—fit habitations for the lords of the soil.

Oh! but you will say "we can't do it." The only way we can get along is to girdle trees and let the stumps rot out. I say you can do it, but it must be by intelligence and combination. If men knew their real interests, a whole town would as readily turn out to root up every stump, as they would now turn out to hunt down wolves and foxes. A quarter of a century hence, it will be a matter of wonder why a stump was ever left cumbering the ground, when some simple power will be discovered that shall lift them with a child's finger. And these inventions will be made just as soon as farmers want them, and are willing to pay for them.

As fires cleanse away the filth and rubbish, all things of life and beauty will take their place. It should be the farmers aim and delight to have nothing about him but sound, healthy, handsome animals. Avoid sickly, lean, lousy cattle, as you would a pestilence. A blooming garden will bring the bloom of health to the ceeeks of your wives and daughters. The roseate hue of the choicest fruits will radiate the countenances of your children. Every action of man to spread around him life and health, whether to animals or vegetables, returns back to him, laden with its choicest fruits.

But if considerations of health fail to move you, ask yourselves what right have you to mar the beautiful creation, by cutting and hacking and killing without substituting equal beauty. Man's orignal charter of the earth was to subdue, dress and keep it—to ornament, not disfigure—to preserve, not destroy. Therefore every man who contributes to turn the grandeur of the majestic forest into a vegetable charnel house, is indictable at the court of Heaven's high chancery, for a high crime and misdemeanor. And although the procees of law may be hidden from our sight, yet the penalty of every offence against the majesty of nature, are exacted with unrelenting promptitude. Every man pays the penalty in poverty, sickness or death.

Now, my friends, if I have made you dissatisfied, and uneasy, and determined to inform yourselves, and to be second to none in intelligence and refinement, I shall think I have done more good than if you

went home self-satisfied, and content with being the best, and most independent, and most important part of the community. Depend upon it, agriculture is destined to become the last and leading profession of the civilized world, as it was its first beginning. And I say this, not so much from present indications as from a perception of the direction in which are turned the moving forces of the moral universe. Every thing moves in cycles, and the starting point becomes the finishing and crowning culmination. And thus agriculture will go the round, gathering up all the science and knowledge and invention, till every rood of ground becomes a garden, every house a palace, and every farmer a prince in his own right of being really one of nature's noblemen.

The only question for you to determine is, whether you will go on with the movement or stand still, and be left behind. The movement itself will go on, whether you take part in it or not; for the world is aroused, and it will not go to sleep again. Therefore, I it to you to make your own election, and be the arbiters of your own fate.

Kalamazoo County Agricultural Society.

KALAMAZOO, January 25, 1851.

In conformity with the 11th article of the constitution of the Michigan State Agricultural Society, the following is respectfully submitted as the annual report of the auxiliary society of Kalamazoo county:

Up to the time of holding our county fair, (which took place on the 9th, 10th and 11th of October last,) the most vigorous exertions were made use of to impart to the occasion all the interest and importance of which it was deserving. Arrangements upon an ample scale were made by the executive committee, and no personal or pecuniary sacrifice was avoided, that would interfere with the consummation of their plans.

The society of Kalamazoo, being the senior of the sisterhood of societies in the State, and presenting at the same time the anomaly of being older than its parent itself, actuated the committee in the attempt to accomplish something creditable to themselves, and (as they believed,) to the "banner agricultural society" of Michigan.

Adopting, in some measure, the plan of the State Society, they enclosed a field of some five or six acres, with a fence sufficiently high to prevent the ingress of such as were not entitled to admission, and fitted up the interior with pens suitable for containing as much stock as would probably be exhibited, and erected such buildings for the exhibition of articles of household manufactures, &c., as are usually employed for like purposes in those States where greater advancement has been made in a similar object.

Immediately preceding days announced for the fair, sickness of an alarming and very exciting nature visited our county seat, and hundreds were, in consequence deterred from any participation in the great design; in addition to this, the most unpropitious weather prevailed during the entire three days; yet, notwithstanding these unfortunate and uncontrollable contingencies, the gathering was one which surpassed expectations and furnished irresistable evidence of

the high estimation in which any thing appertaining to agriculture is held in our midst.

Premiums to about the usual amount, (as will appear from the list accompanying this report,) were awarded, and competition in most cases sufficient to create a laudable excitement. The plan of raising funds, to meet the awards and such necessary expenses as are usually incurred, by the sale of tickets of admission, fully accomplished the design, and will relieve the society from all outstanding liabilities. Heretofore voluntary subscriptions was the means employed to carry out the object; but, an experience of five years has proven beyond a doubt that such a dependence is wholly unreliable. Murmurs, it is true, might be heard here and there, at this innovation upon the old system, but they came principally from those whose donations for the support of any laudable or public object are "few and very far between;" and we blush as we record the fact, the opposition, in some few instances, emanated from individuals who have often been successful competiors for premiums, but who have never contributed a "mite" towards the fund out of which those premiums were paid.

It being the only available source of revenue, the plan will undoubtedly be pursued, and no doubt, in due time, reasonable and reflecting men will withdraw their disapprobation. It is with pleasure, indeed, it is with pride that we can point to the benefits which have already grown out of the existence of this institution, in our midst. Stock of all kinds has improved, and is improving on our right hand and on our left, and such is the competition which is manifesting itself in the production of crops, that the omens for the future are eminently auspicious.

Farmers who were wont to be perfectly satisfied with a yield of 20 or 30 fold, are mortified now, with anything short of 50 or 60 fold, under the present progressive order of things. The noble Devon, and the stately Durham are fast supplanting the stinted, degenerated Native breed. The French and Spanish Merino have taken, in some instances, and are taking in others, the place of the coarse and low-priced grade of sheep; and the Leicester, the Suffolk, and the Byfield, are now grazing with dignity, where the Pointer and the Landpike were formerly rooting and squealing with all their *might and main*, and lean at that.

Farms, which heretofore with difficulty, remunerated the owners for the expenses incurred in tilling them, are now sources of profit to the husbandman, and are fast wiping off the incumbrances which for years have been accumulating. *Thrift*, in fact, has taken the place of *unthrift*. To nothing are these changes so directly attributable as to the interest which has been enlisted among us by these annual gatherings, and the wholesome competitory spirit which has accordingly been elicited. Upon a continuance of these or like means, together with a spirited support of agricultural presses, mainly depend our future advancement; and in the maintainance of these, it certainly becomes us to exhibit a praiseworthy spirit of liberality and personal sacrifice.

As an agricultural nation, we have but just emerged from the nursery. Europe regards us as in our infancy, so far as this great occupation is concerned, and the opinion of Europe is entitled to regard. Progress is written upon every thing which meets the eye or strikes the ear; and in no one thing is it more observable than in what pertains to agriculture.

We may sleep before that period arrives, but arrive it will, when these lands which we occupy, like the lands of Egypt, will reward the husbandman, not with 25 or 30 fold, but with at least 100.

Time will elapse, and effort will be required, to accomplish all this; but we should consider onrselves wisely and honorably employed in playing the character of pioneers in this great national enterprise.

The following is a list of the premiums awarded at our late fair:

FARMS.

The committee on Farms, report as follows: That for management, improvement and stock, the farm of Andrew Y. Moore, is entitled to the first premium on prairie farms, $6 00

That the farm of Thos. and Wm. Patten, of Prairie Ronde, is entitled to the 2d, 4 00

The farm of John R. Glynn of Kalamazoo, is entitled to the first premium on opening farms, 6 00

The farm of Timothy Clement, of Brady, the 2d, 4 00

GODFREY KNIGHT,
AARON EAMES,
STEPHEN ELDRED,
Committee.

HORSES.

Best stallion, 1st premium, Barney Balch,	$3 00
2d best do 2d do Mr. Phillips,	2 00
Best brood mare and colt, 1st premium, Mr. Nelson,	3 00
2d best do do 2d do Wm. Miller,	2 00
Best 3 year old gelding, Wm. Price,	3 00
2d best do seed colt, A. Briggs,	2 00
Best 2 year old colt, G. Knight,	2 00
2d best do Wm. Dana,	1 00

No competition on yearling colts.

The committee regret that competition was so limited, and even of those offered many were quite inferior, particularly of brood mares and colts. Among those exhibited, as exceptions, they take pleasure in referring to a brood mare with two of her colts, belonging to Charles E. Stuart; to a stud horse belonging to Andrew Y. Moore; to a pair of matched horses, by David B. Webster, and to a fine two year old, by Mr. Graham, of St. Joseph county, none of which were entitled to premiums, but would have taken a high rank at any exhibition of stock in the county. The committee would also say that the two stallions to which premiums were awarded, were weil worthy to be exhibted.

They would also suggest to the farmers a more general attention to this branch of Agriculture, and hope that the next annual exhibition will present a largely increased number of competitors, together with the much needed improvement in the animals offered.

JOHN PARKER,
JOSEPH FRAKES,
B. HUMPHREY,
Committee.

CATTLE.

The committee on cattle, report as follows:

Native grades, and those of mixed breeds, best bull, not less than 3 years old, John F. Gilkey,	$3 00
Best bull calf, John F. Gilkey,	2 00
2d best do J. N. Nickols,	1 00
Best milch cow, James Taylor,	2 00
Best two year old heifer, D. J. Smith,	2 00

Best heifer calf, Epaphro. Ransom,	2 00
Best yoke working oxen, not less than four years old, Phillip Goodrich,	3 00
2d best do do Isaac Vickery,	2 00
Best pair three year old steers, D. J. Smith,	2 00
2 l best do John Milham,	1 00
Best fatted animal, an ox, E. B. Dyckman,	3 00

Many other fine specimens of fatted cattle were exhibited, but only one premium is permitted. We take pleasure in making special mention of an another ox, of Judge Dyckman, and a cow of Mr. James Taylor, and one of Isaac Vickery, Esq.

Durhams, best bull not less than 3 years old, E. Phillips,	3 00
2d best do Joseph Frakes,	2 00
Best cow, John R. Glynn,	2 00
Best yearling bull, Joseph Frakes,	2 00
Best two year old heifer, John Milham,	2 00
Devons, best bull not less than three years old, W. H. Edgar,	3 00
Best cow. John R. Glynn,	$2 00
2 year old bull, Epaphro Ransom,	2 00
bull calf, Epaphro Ransom,	2 00
yearling heifer, W. H. Edgar,	2 00

Mr. Edgar had on the ground two fine Devon heifer calves, but they were not offered for premiums.

The committee feel called upon to add, that very superior herds of cattle were brought on the ground by Hon. C. E. Stuart, A. Y. Moore and John F. Gilkey, Esqrs., but not offered for premiums.

In Mr. Moore's stock, the Durham blood preponderates. His herd contained a fine yearling bull and a bull calf, and several cows and heifers.

Mr. Stuart exhibited a Durham cow and yearling heifer, and a bull calf from his high bred Durham cow and Gov. Ransom's Devon bull.

Mr. Gilkey's stock consisted of cows, steers and heifers, of mixed blood, but the Devon greatly predominating.

The animals produced by these gentlemen all gave clear indication of judicious and skillful breeding, and of generous feeding.

EPAPHRO. RANSOM,
S. G. PATTISON,
W. C. GIBBS, *Committee.*

The undersigned, members of said committee, deem it proper to say, that in relation to all animals, competing with his, Gov. Ransom did not participate in the action of the committee.

S. G. PATTISON,
W. C. GIBBS.

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SHEEP.

The committee on sheep, submit the following as their report:

Best buck over 2 years old, John F. Gilkey,	$2 00
2d best do do William C. Gibbs,	1 00
Best two year old buck, George Lovell,	2 00
2d best do do	1 00
Best yearling buck, George Lovell,	2 00
2d best do Curtis Hoppin,	1 00
Best 5 ewes, over one year old, Epaphro. Ransom,	2 00
2d best do do George Sheldon,	1 00
Best 5 yearling ewes, John Milham,	2 00
2d best do Curtis Hoppin,	2 00
Best 5 yearling bucks, John Milham,	2 00
2d best, do George Lovell,	1 00
Best 5 buck lambs, John Milham,	2 00
2d best, do Curtis Hoppin,	1 00
Best 5 ewe lambs, John Milham,	2 00
2d best do Curtis Hoppin,	1 00

H. KIRKLAND,
Chairman.

—

SWINE.

Best boar over one year old, M. Heydenburgh,	$2 00
2d best, do A. Kinne,	1 00
Best sow and pigs, Epaphro. Ransom,	2 00
2d best do Martin Heydenburgh,	1 00
Best boar under one year old, John R. Glynn,	2 00
2d best do Albert G. Tower,	1 00
Best sow under one year old, John Milham,	2 00
2d best do John R. Glynn,	1 00

ANDREW Y. MOORE,
Chairman.

FIELD CROPS.

A meeting of the executive committee will take place some time in the month of January, when the award on field crops will be made.

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FRUITS.

Best and greatest variety of apples, T. W. Dunham,			$2 00
do	do	pears, Epaphro. Ransom,	2 00
do	do	quinces, A. Eames,	2 00

HENRY BUSH,
JAMES HENRY,
EZRA STETSON,
Committee.

—

VEGETABLES.

Best pumpkins, A. T. Prouty,	50
squashes, Godfrey Knight,	50
onions, "	50
radishes, Mary Jones,	50

H. BUSH,
Chairman.

—

POULTRY.

Best three Dorkins, Doctor Freeman,	1 00
three Polands, C. W. Jones,	1 00
large fowls, Sabin M. Nichols,	1 00
pair of geese, John Milham,	1 00
exhibition by one person,	1 00

The committee are highly gratified at the interest manifested in poultry, as compared with former years. Last year was the first exhibition, and was then quite limited. This year, it has received more attention, and the specimens are very superior. Your committee has never seen finer Polands, anywhere—and the large Changhea Cohens, are splendid of their kind, and if size is deemed the paramount object by any breeder, these will be difficult to excel. The many, and splendid varieties exhibited by Doctor Freeman, evince a very

accurate taste in the breeder, and the perfection to which the various crosses are brought, is conclusive evidence of his superior skill and judgment. One of the pair of geese exhibited, in point of size and symmetry, cannot be excelled.

CHARLES E. STUART,
MILLS N. DUNCAN,
Committee.

—

MANUFACTURED ARTICLES.

The committee report as follows:

Best farm waggon, O. W. Perkins,	$3 00
" pleasure waggon, E. G. Warren,	3 00
opening plow, E. G. White,	1 00
wheat cultivator, Albert Arms,	1 00
shovel plow, Edward Warren,	1 00

The committee would recommend the awarding of the following discretionary premiums:

Best fanning mill D. R. Roselles,	$2 00
covered buggy, J. B. Cornell,	3 00
saddle, Wm. Green,	1 00
Niagara plow, A. Arms,	1 00
sett of teeth in gold, Doct. Sill,	2 00
morticing machine, Charles Crittenden,	1 00
ox yoke, A. B. Munroe,	50

The committee recommend to favorable notice, a horse power, which was exhibited.

—

HOUSEHOLD PRODUCTS.

The committee to whom was entrusted the duty of awarding premiums on household products, submit the following as the result of their examination:

Best sample of cheese, Miss Finley,	$2 00
do butter, Mrs. Aaron Eames,	2 00
2d best, do Mrs. Martin Heydenberg,	1 00
Best woolen carpet, Mrs. Benjamin Drake,	2 00
2d best do Mrs. John F. Gilkey,	1 00

Best rag carpets, Mrs. Lovett Eames,	2 00
2d best do Mrs. Catharine Hall,	1 00
Best cassimere, A. Taylor,	2 00
2d best do "	1 00
Best flannel, Mrs. E. Ransom,	2 00
woolen mittens, Mrs. Goodrich,	1 00
pair of gloves, Mrs. C. Y. McCracken,	1 00
quilts, (patch-work,) Mrs. Kedzie,	2 00
2d best do do Mrs. E. H. Porter,	1 00
Best coverlets, Mrs. Caleb Eldred, Jr.,	2 00
2d best, do do	1 00
Best sample needle-work, Mrs. C. S. Arcambal,	1 50
2d best do do do	1 00
3d best do do Goodale,	1 00
Best sample embroidery, (worsted,) Miss Helen Earl,	1 50
2d best do do Miss Betsey Tuttle,	1 00
3d best do do Mrs. E. Campbell,	1 00
Best painted window shades, Mrs. Kimball,	1 00
pictures, D. Carroll,	1 00
2d best do A. G. Hopkins,	75
Best bonnet, Miss Vandeburg,	1 00
2d best do Miss Stewart,	75

The painting representing Gen. Marion inviting a British officer to dine with him, (the performance of Mr. Gibbs, an artist of great promise,) received the admiration of the committee, and was awarded a premium of $2.

F. W. CURTENIUS,
WM. B. CLARK,
ANDREW TAYLOR,
MRS. AARON EAMES,
MRS. S. P. COBB,
MISS VANDEBURGH,
MRS. JOHN CLARK,
Committee.

The awarding of the premiums was preceded by an address from the Hon. Lewis Cass, which, although lengthy, was listened to with

attention by a large and intelligent audience. A copy of the address accompanies this report. All which is respectfully submitted.

FRED. W. CURTENIUS, *Rec. Sec'y.*

J. C. HOLMES, *Sec'y of M. S. Ag. Soc.*

Address of Gen. Lewis Cass, delivered before the Kalamazoo County Agricultural Society, on Friday, October 11, 1850.

"In the sweat of thy face shalt thou eat bread!" Memorable words these in the history of our race, spoken by Him who alone might speak them, and upon a memorable occasion. He, who created man after his own image, pronounced this curse of labor upon the primitive sin of disobedience, and drove him forth from the garden of Eden "to till the ground from whence he was taken." But His judgments are tempered with mercy? and we read this beautiful attribute of his character, equally in the book of nature and in the book of revelation. And it is written in letters of living light upon this dispensation of His divine will. The curse has become a blessing—the penalty a mercy; and man, who went forth from a dwelling without care, into a world to be reclaimed by toil and trial and trouble, and there to wage a perpetual conflict with the obstacles of nature, now finds this rugged warfare essential to the developement of his physical and intellectual faculties, and to that dominion over the works of nature around him, which he was designed by the Creator to exercise. Without motives for exertion, without labor to occupy, and its rewards to stimulate us, what were life, but the performance of animal functions, common to us and to "the beasts that perish?" If we had harvest without seed-time; if nature spread before us, all and always, the spontaneous products of the earth; if food and clothing were the gifts of her bounty instead of being the result of human industry, we might still walk erect in the image of God, but we should look round upon the fair face of nature, almost equally indifferent to this work of his hand, and to the great purposes of life. In the tropical regions of the globe, magnificent and exhaustless in their productions, where man does nothing and the earth everything, the human race is scarcely elevated above the animals, their co-tenants of the forests, who equally find their means of subsistence in the same exhuberant fertility. But where nature requires the aid of

man in the work of ministering to his wants, and where, at every step of his life, he finds that its tenure depends upon mental and physical energy, there his true characteristics are developed, and he maintains the station, where God first placed him, at the head of creation, with duties here and hopes hereafter, furnishing at once the motives and the recompense of his actions.

We have assembled here to.day to commune together, upon one of the great departments—the greatest indeed—of human employment. In the task assigned to me, I shall not enter into the practical details, which belongs to this vast subject; interesting to all, however diversified their avocations in life. I feel my incompetence to perform the part of a teacher in the great art of agriculture; the art of directing and aiding nature in the performance of those functions, which were designed by Providence for the comfort and subsistence of man. A large portion of this intelligent assembly unite experience with observation, an intimate knowledge of practical operations, with a just theory of their application, and a full appreciation of the value of combining personal experience with those enlarged views, which are essential to progressive improvement. But omitting those practical details, which a familiar knowledge of the subject can alone furnish, there are still many general and important considerations, as well moral and statistical, as historical, which are neither inappropriate to the occasion, nor unworthy of your attention, and some of these I propose to present to you.

The more active portion of my life has been devoted to other and harsher duties; and much of it to ranging the forests in the pursuit of the red man in time of war, and to counsel with and restrain him in time of peace. And this is not the first time I have been here. I have been here, when he who now speaks, if he had spoken then, would have found no hearers. When the silence of the forest was unbroken by the cheerful hum of human industry, and its solitude uninterrupted, but by the wandering Indian, and the animals, that ministered to his wants—when a world of primitive, gigantic vegetation extended its sway across our own beautiful Peninsula, and on the very shores of the Pacific, where our fathers' flag and our own now waves in the breeze that comes from the continent of Asia.

He alone, who has traversed these regions, day after day, in the

freshness indeed, but in the silence and solitude of nature, almost appalled by a sense of loneliness and insignificance, amid these wonders of creative power, can justly appreciate the efforts of man in subduing and reclaiming the prairie and the forest, and preparing them for those scenes of improvement and cultivation, which cheer the eye and gladden the heart of the traveller; and, above all, of the traveller, who preceded the march of civilization, and now follows it in its glorious progress. Never has human industry achieved a prouder triumph, than in this conflict between nature and man. As in the Exodus from Eden, he has been "sent forth to till the ground," and in the "sweat of his face" has he thus far fulfilled his mission. And a proud one it was; aye, and yet it is; for, though it has done much, it has still much to do. It began at the beach of Jamestown, and the rock of Plymouth, where its first labors were broken by no sound but the surges of the Atlantic, and they will finish only, when the last echo of the woodman's axe shall mingle with the surges of the Pacific. Do not these miracles of enterprise resemble the fictions of an Eastern imagination, rather than the sober realities of human experience? Do they not speak to us in trumpet tones of the value and dignity of labor, for by labor have they been wrought—persevering, unyielding, triumphant labor. There is no lesson more important to be taught to our young countrymen than that which is taught by this great characteristic feature of American history; the immense conquest which man has achieved over the world of matter, that opposed his progress, and the scanty resources he brought to the work. His own exertions, and the axe and plow, have accomplished this mighty task; always indeed with toil and exposure, and sometimes under circumstances of privation and suffering, before which the stoutest resolution might give way. But if time brought its trials, it brought also its reward; it converted the wilderness into a garden, and spread over the face of the country, those beautiful habitations, and those fertile and productive fields, such as this region offers to view, and which are at once, the evidence and recompense of that industry and enterprise which quail not before toil or danger, but still go on preparing this goodly heritage, as well for ourselves as those who are to follow us when our task is done.

And how would this great work of subduing nature and preparing

the forest for the residence of man have been accomplished in the older regions of the globe, so long the theatre of human exertions? The answer to this pregnant question describes by a single trait, the great marked difference between the condition of agricultural labor in the Eastern and in the Western hemisphere; between the laborer for others, and the laborer for himself. Across the water, which does not separate us more widely in space, than do the position and prospects of the people in their condition, great enterprises are never concerted, and conducted by the mass of the inhabitants. Counsel and capital are furnished by the few and fortunate; "the sweat of the face" by the many and the wretched. And the profitable results belong to the former; while the latter eke out a scanty and precarious subsistence, as poor and depressed at the termination of the most successful and gigantic undertaking, as at its commencement. Here it needs not that any one should tell you the difference. He, who runs, may read it in the history of our whole progress, individual and national. The forest has fallen before those who established their habitations in its dark recesses; dark till their toil made way for the light of Heaven to shine upon them. They labored themselves, and for themselves. No task master directed their work, and no speculator garnered the profits. And thus exertion was stimulated by the most powerful motives which can operate upon human nature; by the necessity of present subsistence, and the hope—the certainty, I should say, of future competence and comfort; and therefore it is, that upon the immense domain from Lake Erie, almost to the shadow of the Rocky Mountains, a vigorous, intelligent and enterprising people have fixed their residence, and by their own labor, and for their own advantage, have prepared it for all the purposes of civilized life. And the time, within which this has been done, is not the least extraordinary feature in this great national migration—a migration going forth to invade the forest, and to fulfill the first command of the Creator, "to replenish the earth and subdue it," and not, as in the history of human conquest, to lay waste, and destroy, having before it fertile and flourishing regions, and behind it ruin and desolation. The man yet lives, who was living, when almost the first tree fell before the pioneer's stroke in this magnificent region, and the man is now living, who will live to see it contain one hundred millions

of people. I have myself known it for half a century, and in that space, long indeed in the life of man, but brief in the life of communities, our own region of the Northwest, marked with its distinct boundaries upon the map of nature, by the Lakes, the Mississippi and the Ohio, has risen from infancy to manhood, from weakness to strength, from a population of a few thousands, to five millions of people; of freemen, owning the soil they occupy, and which they won by their industry, and will defend by their blood. Where, in the long annals of the human race, can you find such an augmentation of the resources and numbers of a country, gained in so short a period, and under such circumstances of trial in its progress, and of prosperity in its issue? And may we not well say, that the mighty agent, which has built up this monument of productive power, deserves the gratitude and the fostering care of the American people? And that agent is labor, and our duty is to elevate it in the scale of employment. To show what it has done, and is doing, and is destined, I trust, yet to do. It has not founded a monarchy indeed, whose burthens are for the rejected, and its benefits for the chosen; whose splendor dazzles the eye, while its oppression sickens the heart. But it has laid the foundation of a Republic, broadly and deeply in the rights of man; whose equal protection covers all, as its equal honors are open to all; and whose career, if not checked by our own folly, or by the just judgment of God, promises a glorious and encouraging spectacle to the lovers of freedom through the world—aye, and an example too for long ages to come.

Human occupation should be measured by its useful conseqences and by its moral tendencies, and by the principles and conduct of those, who are devoted to it, and whose character is formed by its pursuit. Tried by this standard, where shall we find an employment more worthy of honor and regard, than that which drew from Sir William Jones the eloquent panegyric, that "he who makes two spears of grass grow where but one grew before, is a public benefactor, far in advance of the noblest chieftians, who, aided by armies and the enginery of war, sack cities, carry conquest onward, only to conquer, and subjugate and desolate Kingdoms." And yet so wayward is human nature, and so unjustly are its honors distributed, that the temple of Mars is thronged with the votaries of fame, while silent

are the altars of Ceres, and those who worship there must find their reward, not in public renown, but in the conscicusness of a duty, self-imposed and faithfully performed. But a better day has begun to dawn. Many old things are passing away, and with them is waning that military glory, which has so long led captive the best affections of our nature. The time is coming when the supporter of human life will find his station far higher in the world's estimation, than the destroyer. We are beginning to learn, that the splendor of victory is a fearful pageant, while conquest over the earth, and the multiplication of its products are acceptable sights in the eyes of God and man. He, who puts his hand to the plough, and does not look back upon more brillinnt but less useful employments, will not fail to find his reward in a happy and honorable life. What a perversion of terms, or rather what a perversion of moral sentiment does it exhibit to talk of the dignity of indolence, the dignity of doing nothing, and the unworthiness of useful honest labor! Whatever of this feeling there is among us, and there is some, is exotic, not indigenous; imported, whence many other notions, equally unreasonable and injurious, have come, to exercise a baneful influence upon our social system. Labor, when associated with political and personal degradation, carries with it human sympathy, but not human respect. It is not a condition, which any right-minded man would seek, except under the pressure of overruling necessity. And this state of things often meets the eye of the traveler in the old world, and once met mine, under striking circumstances in the oldest region of it. I was standing on the banks of the Nile, the Nile of Joseph and of Pharoah, as well as of Mahomet Ali, in the city of Cairo, upon the point of embarking in a boat to visit the Pyramids, those monuments of human labor and folly, equally useless and indestructible. No crew had been provided, and it requires a numerous one, for the vessels are unwieldly, and the current of that mighty river is rapid and powerful. But the Egyptian police was there, and had been ordered by the government to render the pilgrims from the far West to the shrines of the East, any assistance that might be necessary for the objects of their voyage. And this duty they fulfilled in their own peculiar way. There was a crowd upon the shore, gazing on the strangers and their preparations. Two turbaned agents seized the

ends of a rope and passing rapidly into the assembly, enclosed within it a sufficient number for the purpose, serving this Mahometen writ as coolly, and with as little resistance, as would attend the proceedings of a constable in this country, who should summon a man before a justice of the peace, for a debt of five dollars. And this new press-gang, acting upon the English principle, that the government has a right to command the services of its people in its own way, put the crew on board, and we departed for those mighty structures, which go back to the days of Moses. And still more characteristic was the inattention to the subsistence and compensation of these oppressed Fellahs, to their "leeks and their onions," for human manners are unchangeable in the east, and while the task-masters in our own times, as in those of the Patriarchs, say that "not aught of your work shall be diminished," they add now as then, "get your straw where ye can find it." Before our excursion was over, however, we were upon the best terms with our Egyptian friends, who were willtng to go with us to the very confines of Abysinia, had we desired to take so long a journey. So much for the oppression and insecurity of the laboring classes in those seats of prmitive civilization! And yet I have heard high men in high places—in the halls of legislation, indeed, of this happy country—I have heard them call the government of the Uuited States the most despotic government on the face of the earth; and these words, I fear, fell sometimes on willing ears; willing to believe this strange paradox, contradicted by the experience of every American, and by the knowledge of the world; by the whole history of its oppression in every period of society, from the creation to the day, when the ungrateful assertion first arrested public atteution, as one of those signs of an approaching storm, which is now happily passing away, leaving us a bright and peaceful atmosphere.

A despotic government; an oppressed country; a ruined people! Let him, who thinks so, seek a happier residence elsewhere, and he will return, if return he can, cured of this monomania, for it is nothing better; and thanking Providence for this best refuge for down trodden humanity. If he does not, I will confess, that when I looked down from the top of the great Pyramid of Cheops upon the old and fertile valley of the Nile, made fertile by God and not by man, and

contemplated what had been done and suffered there, and thanked the Giver of good, that I was born far away, across the Atlantic, in a spirit of gratitude and not of boasting, I knew neither my own oppression at home, nor the freedom and happiness of the people around me, and whose misery I thought I saw at every step of my journey. But al this is the very extravagance of a morbid feeling, or of something worse. And we should be far more likely to preserve our blessings, if we felt and acknowledged them, and thanked God for his mercy, who enabled our fathers to acquire them, than by this eternal system of complaint, of sectional reproach, of attempts to show how much better our condition might be; all which may ascend to Heaven, like the murmers of the Israelites in the wilderness, and provoke the divine wrath, if they have not done it already, against another "stiff-necked people."

It would be far better and wiser, if each portion of our country would look more at home, and less abroad, and set the example of useful philanthrophy in its own domestic circle; for there is yet every where enough of moral and natural imperfections to engage the zeal of the most disinterested friend of human nature. It would be well to remember and convert to our own profit the memorable rebuke of the Savior, when he said to the Scribes and Pharasees, "He that is without sin among you, let him first cast a stone at her." When we have performed our own duties, then we shall be better fitted to instruct others; but even then, words of instruction, if not words of peace and kindness, will increase the very evil, which engages our solicitude.

There is one great error, to which public attention is now directed, and which ought long since to have found a corrective, and that is, the too prevailing impression, that education, at least to any considerable extent, is unnecessary for those who intend to devote themselves to the pursuit of agriculture. And in this connection, that some of the other professions are more respected, if not more respectable, than is the life of the independent farmer. And we find in the writings of Swift, a close observer, though a cynical judge, of the prevailing manners, a singular illustration of this prejudice in the remark, that many a man has broken his head against the pulpit, who would have made a respectable figure at the plow tail—yes, as re-

spectable as the ox at th plow beam. For it is evident he was regarding the same property in the team, that draws the plow, and the man who holds it; the mere mechanical power to labor, and that, too, in situations where intellect is little better than instinct. A more unreasonable and unjust prejudice than this, for it cannot be dignified with the name of opinion it would be difficult to find in the whole circle of human errors. This class of our population are the natural guardians of our republican institutions; sentinels in safety, defenders in danger. Covering the face of our country—its highest hills, its lowest valleys, its broadest prairies—their interest and their influence extend everywhere, and these will only be exerted for the general welfare, whose first great ailment is indissolubly connected with the prosperity of agriculture. There can be no combinations, no sectional alliances to sway this great departmen of productive and political power. How important it is then, that education should lend its aid to the performance of duties, upon which so much depends?

If to delve the earth were all the farmer had to do, he might be left to do that, without the deep stake in his intellectual improvement which the State now possesses. But he has other duties, requiring as high a range of cultivation. as most of the employments which go to make up the social system. He is wanted, as a citizen, to understand the constitution and laws of his country, to perform intelligently the important functions of an elector, and to mingle in the various questions, which, from time to time, and at all times arise, for discussion and decision. He is wanted to take his part, a prudent and an efficient part, in the administration of public affairs, in all the duties. which belong to our complicated system, municipal, State, and general, and which, while each is kept within its proper orbit, form together one harmonious sphere. And who can look back upon our past history, or round upon our present condition, and not feel proud at the proofs, which meet his eye, that the highest honors and rewards of his country are not only open to all, but that they are attained by all, be their pursuits in life what they may? Labor, every department of labor, has sent its contribution to the public service, in its highest and most responsible grades. We have now at the head of this republic, the first truly elective office in the world, an able and

intelligent chief magistrate, whose early years were years of manual labor, and who was enabled by his own industry to acquire an education, and thus to lay the foundation of that eminent position he has attained.

My own experience may not be without profit to some who hear me; certainly not, if it furnishes motives for encouragement or hopes to stimulate to exertion. It is fifty years and more, since I crossed the mountains on foot, a young adventurer, seeking that land of promise, which has been to me, as to so many others, a land of performance. I had many difficulties to contend with, many obstacles to encounter, and many privations, in peace and in war, to endure; and I have probably undergone as large a share of fatigue and exposure, in the early part of my life, as often falls to the lot of our countrymen. But thanks to the nature of our institutions, to their glorious equality, and thanks above all to the favor of my countrymen, I have had a measure of political prosperity, far beyond what I merited, or even dared to anticipate. The youthful emigrant, now in the decline of life, communicating to his youthful hearers the result of his experience, that they may go and do likewise—in all but the errors he committed—has been borne onward by his generous fellow citizens to the high posts of the nation, and has represented his country at the court of Kings. And he has returned with the conviction, as abiding as his life, that the sun never shone upon as happy a region as this confederation embraces; nor one where human freedom meets less opposition, or the human intellect less restraint; nor where there are such powerful motives for exertion, or such distinctions for its reward.

Our history furnishes many striking examples of this progress from unprotected self-dependence to public confidence, and to the highest honors. The Father of his country commenced life as a land surveyor, and he died, leaving the brightest name that mere man has left in all the long annals that record the days and deeds of the human race. Greene, his friend, and undoubtedly his most confidential general, a distinction he well merited by his courage and conduct, was a blacksmith, and laid down the hammer when he girded on the sword. Putnam, the very impersonation of hardihood and intrepidity, was driving his plow, when the musketry at Lexington

aroused a Continent. He left that plow in the furrow, and mounting his horse, repaired to Boston, and joined the throng of patriots who, with a devotion to freedom as true and holy as ever animated the human breast, entered into a contest more unequal pehaps than any which oppression has ever waged against power. And we learn from the Holy Scriptures, that the chosen champion of a higher warfare, the prophet Elisha, when summoned to his mission, was found by Elijah in his field, "plowing with twelve yoke of oxen before him, and he with the twelfth." Morgan, the most enterprising partisan of our revolution, was a wagoner; Starke, whose memorable defeat of the British at Bennington, prepared the way for the capture of Burgoyne and his army, was, in early life, a field laborer. Roger Sherman, equally renowned for the power of his intellect, and his active and efficient exertions in the councils of the nation, was a shoemaker; and Franklin, whose name recalls his world-wide reputation, and the deeds in the Arts, in Science, and in the service of his country, which he did to acquire, and to deserve it, was a printer, laboring assiduously at his work during many years of his life. But I need not add to these illustrious names. It would be easy to do so, were more examples of success required. But sufficient are these for all who desire to profit by this characteristic and encouraging chapter of our history. Young men, whom I see around me, ponder over the lives of these great men of the past generation. Follow their course with proberty and perseverance, and you will follow them also in their useful career. You cannot all, indeed, attain the highest stations, but you may all attain respectability and prosperity, and enough of both to satisfy the measure of a reasonable ambition.

But besides these considerations, connected with education, which are derived from our political institutions, there are others, peculiarly applicable to the condition of the agriculturist, who has no wish to exchange the quiet and contentment of his farm for any public duties whatever. The improvement of the intellectual faculties, in all the stages of life, constitutes one of the most rational and active sources of human pleasure. It enlarges our views of the works and designs of Providence; it opens new channels of information; it removes those prejudices, we are so prone to entertain, when circumscribed within a narrow horizon; and it extends the sphere of our

utility, as well for others as for ourselves, by that increase of knowledge, which is the greatest element of power, or rather, as Lord Bacon says, which is power itself. And, above all, the very employment of agriculture demands the faculty of observation, invigorated by application and experience; an acquaintance with the progress and condition of this greatest of human arts, that we may not be behind our competitors in the race of improvement; and some knowledge of the various branches of study, for there are few of them which may not lend their aid to the farmer in the annual round of the seasons, bringing with them their appropriate duties. The care of his domestic animals in health and in sickness; the improvement of the breed, that miracle of modern agricultural progress; the quantity, quality, and preparation of their food; the nature of the soil, which is the theatre of his labors; its adaptation, or the want of it, to any peculiar mode or article of culture; and a vast variety of similar demands upon his industry and judgment, which I have no time to recapitulate, nor you to hear; all these require a sound intellect, aided and improved by reading and reflection. If the duties of the cultivator were merely mechanical, education, so far as respects the exercise of his employment, would be comparatively less important. But the trust committed to him involves much higher functions. The process of vegetation is among the most admirable operations of nature. The soil of the earth is a vast laboratory, whose chemical action is forever going on, and whose final object is the production of plants for the support of animal life. How these can be improved in their quality and increased in their quantity, is always a subject of earnest inquiry, and becomes more so, as the continually augmenting population of the world demands a greater supply. To effect this object, a knowledge of the laws, which regulate vegetable life, becomes indispensable, and these can only be discovered by experiment and by enlightened observation.

Plants are not merely organized matter; they have conferred upon them a species of life, and possess organs, deriving nourishment from the soil where they grow, and endowed with the property of elaborating the supplies thus obtained, into their support and their growth. It is evident, that to make any satisfactory progress in our agricultural researches and improvements, we must study the opera-

tions of nature, and ascertain, as far as we can, the laws she has imposed upon this great department of creative power, in the structure and composition of plants, and in the functions they perform. Modern chemistry has directed its analytical investigations, with success, to this great field of inquiry, and has revealed to us many important facts, enlarging our knowledge of vegetable economy. It has taught us much of the apparatus of vegetable life, and of the process employed, and we have thus learned the nature of its gums, sugars, starch, oils, acids, and of the other objects it supplies, and which are so important to man, And we have gained much insight into the food of plants, and into the best mode of furnishing it by the application of manures, suitable to the soil, and to the product to be raised. One of the most remarkable proofs of the advantage of chemical knowledge, when applied to great practical objects, is to be found in the discovery of the valuable properties of the beet root for the purpose of making sugar; a discovery, not merely accidental, bnt the result of experiments wisely directed and skillfully pursued, and undertaken for the express purpose of ascertaining, if some of the plants cultivated in the extra tropical climates, could not supply saccharine matter enough to make their cultivation profitable for the manufacture of sugar, and thus to render those regions independent in the production of this important article of human consumption. A new branch of industry, and a new source of supply have thus opened in some of the countries of Europe, and have grown into national importance.

And in good time, the introduction of these periodical assemblages, collecting together the true farming interest of the various local districts, has come to exert a happy influence upon its progress and prosperity. Such co-operative associations are tributes of acknowledgment to the advancing spirit of inquiry, which is the marked characteristic of our own age. Those, who take part in them, are animated with kindred iews, and an emulation is aroused, which is productive of the happiest effect. All, who are interested in the pursuit of agriculture, either as observers or participators, are brought together, and mutual intercourse makes known the condition of the district, and the improvements that have taken place. Stock, seed, implements, all, indeed, that the farmer seeks to raise or employ,

are exhibited to public inspection, and each can compare the result of his own labor with that of others, alternately improving and improved by the exhibition. And a deeply interested public is there to encourage by its presence and participation, those most useful displays, not of wealth and power, but of the objects and means of that great department of human industry, withoat which no other could exist. The distribution of prizes is admirably suited to the occasion, and indeed, the plan is so obviously useful, that it goes back to the remotest ages, for we are told by Xenophen that Cyrus delivered premiums with his own hands to diligent and successful cultivators, and claiming himself to be a zealous, practical farmer. And there is one use of an emblem of royalty, recorded in poetry if not in history, to which an American even, would not object, and that is found in a picture drawn by Homer, where an ancient Grecian king, employed with the reapers, is pointing with his sceptre to something he desires to have done. *Sceptres, in our days, have no such primitive work to do.* The devotion of the early Romans to the tillage of the ground and the honors they bestowed upon those engaged in it, are among the finest traits in their history. And Pliny, in consonance with these sentiments, remarks: "The lands were cultivated by Generals, and the earth delighted to be plowed by a share adorned with laurels, and by a plowman who had been honored with a triumph."

The first want of man, and a continually recurring one it is, the want of food, and the great source of its supply is the earth, from which he was taken, and to which, in common with all the objects of organized matter, he must return. The system of creation is one of perpetual production, destruction and reproduction; by which individuals appear and disappear in succession, while the species remain to perform the great work assigned to them. From this law there is no exemption. It pervades the whole world of matter, and its unity and universality demonstrate that, for wise purposes, it has been made one of the conditions of existence. Its execution is but a question of time; and though the period assigned for the life of an insect which is circumscribed within the passing hour, and that which is occupied by some of those wonders of the vegetable world, whose growth and decay extend through centuries, and which, in the Eastern Hemisphere are solitary survivors of extinct forests, witness-

es of events, it may be, almost coeval with history, is startling to the imagination, still, the irreversible decree is pronounced upon all, "Dust thou art, and to dust shalt thou return."

The time required to attain the magnitude that trees sometimes reach, is a subject of controversy among scientific botanists; but though actual precision cannot be expected, still we know that the rate of increase diminishes as the size augments, and that many centuries are required to produce these wonderful monuments of the vegetable creation. And this power of longivity affords Isaiah an expressive illustration of the duration of God's chosen people. "As the days of a tree," says the prophet, repeating the promise of the Lord, "as the days of a tree shall be the days of my people."

In Oregon, pines are found upwards of 300 feet high, and in other regions trees are produced not less remarkable for their prodigious circumference; like the plane tree in the valley of Bouyouderck, near Constantinople, which measures 150 feet in girth. Some have attained historical celebrity, and have been associated with remarkable events in the progress of nations. In the Province of Oaxaca is a cypress 122 feet round, said to have been mentioned by Cortez in his despatches, and to have afforded shelter from the sun to the whole of his Mexican army. To this class belong the Parliament Oak in Clipstone Park, in England, under which a parliament was held in 1290, during the reign of Edward the First; the Ankernyke Yew, at Staines, which witnessed the conference between King John and the Barons, and in sight of which Magna Charta was signed; and the Sycamoree Maple in the Grisons, beneath whose branches their Grey League, the foundation of their freedom, was ratified in 1424.

At Morat, in Switzerland, was fought the great battle where Helevetian patriotism triumphed over the oppressor, and secured that liberty which makes its dwelling place in the fastnesses of the Alps. A Linden tree, cotemporary of this desperate conflict still marks the site where it occurred, and is approached with reverence by the Swiss patriot, when he performs his pilgrimage to this high place of his country, to recall the deeds and the dead which gave her a station among the nations of the earth, and gave her also those equal rights and a determination to defend them, in weal and in woe, which have made the name of Switzerland a name of honor through the world.

But the most interesting relic of the ancient vegetable creation is to be found upon one of the ridges of Lebanon, not far from the renowned temple of Baalbec. It consists of twelve gigantic cedars, the remains of the primitive forest, which once covered that great mountain chain of Syria, and which yet rear their heads, prodigies of vegetation, and each surmounted with a dome of foliage overshadowing the spectator, as in the time of Biblical story. One of them is 45 feet in circumference, and all, both in size and height, tell of the long ages that have swept over them, leaving them the most striking natural monuments that the eye can rest upon. What interesting associations cluster around them! They have been consecrated by history, religion and poetry. Their beauty has been recorded by Ezekiel, and their excellence and perfume by Solomon, who placed them at the head of the vegetable creation, when he discoursed of trees, "from the cedar, which are in Lebanon, even to the hyssop that springeth out of the wall." Could these mute memorials of bygone times tell of the scenes that have passed in the shadow of their foliage, what lessons of power and of instability might they not teach, in the long interval that has elapsed since these hills resounded with the noise of the workman, preparing the timber for the Temple of Jerusalem, to the solitude which establishes its dwelling place wherever the Moslem plants his standard.

I have worshipped in many of the high places of the old world; in the Cathedral of Christendom, the Basalic of St. Peter, when the sovereign Pontiff, the head of the Catholic Church, ministered at the altar; and though educated as I have been in the simplicity of the Presbyterian faith, yet I could not look upon the imposing solemnities without feeling a reverential awe pass over me, as though I were in the presence of Him, whose visible glory descended upon the Temple of Mount Moriah. And yet a naked Greek mass, for it happened to be an annual fete when I was there, celebrated under the patriarch cedar, before a rude altar of unwrought stones, by a poor priest, surrounded by a little band of worshippers, with the cliffs of Lebanon around them, and the canopy of heaven over them; this act of primitive devotion in a temple not made with hands, has left traces upon my mind and memory more powerful than the most gorgeous ceremonies, and which no subsequent event can eradicate.

And this power of association, which seems to make us almost contemporary with the earliest and the latest incidents of history, with Socrates and with Washington, is not confined to the giants of the forest, throwing out their broad branches for the sun to vivify, but it is connected with seeds, deposited in the dark recesses of the catacombs, companions of the bodies of the mummies of Egypt, which poor human nature atempted to rescue from destruction, and which for more than thirty centuries have found there a resting place. Seeds have been taken from these receptacles of the dead, with the power of germination yet existing, and have borne plants. the immediate descendants perhaps of those growing in the days of Abraham. This very season, it is said, a small plat of ground in Caithness, in Scotland, planted with wheat, thus recuscitated from its cemetery, produced a crop honorable to the character of Egyptian agriculture in the days of the Pharaohs, yielding, such is the report, a thousand fold; two seeds only having been planted upon every three feet square—a degree of fecundity heretofore unknown in modern husbandry.

The human imagination loves to revel in facts like this. It is interesting, as illustrating one of the most wonderful laws of nature; and it calls into action that beautiful and beneficent faculty of association, which enables us to withdraw ourselves from the present, by connecting it with the past, and seems to make us spectators of events in the earliest period of recorded time. This Scottish wheat may be the offspring of grain taken perhaps from the granaries of Joseph, *where was gathered corn, as the sand of the sea, against the seven years of famine.* But this triumph of the intellect, by which time and space are annihilated, is rebuked at the very moment it is achieved. The efforts of man to preserve the body, when death had done its work, and thus to reverse the decree of Providence, have signally failed. The misshappen matter is but earth, more revolting to the feelings, than if left to its natural decomposition. It will awaken into being but at the sound of the last trumpet, which will gather together the scattered members of every human body, however separated and however changed, as easily as it will rouse into life the mortal remains of Cheops, so long reposing in solitary magnificence, and guarded by the Pyramids erected for that purpose. But the little seed obeys

its law. Time passes harmlessly over it, and it is ready to start into life, whenever placed in a favorable position. The lesson is a pregnant one—may it prove a profitable one, teaching us to confine our operations to aiding the laws of nature, and not to endeavor to reverse them.

In the never ending conflict between life and death, man takes his part and levies contributions upon all the objects, which can minister to his comfort and subsistence. His earliest efforts were no doubt confined to stretching forth his hand, to gathering the fruit that a bountiful nature offered him; but he must have been soon taught by experience, that this supply was too scanty and precarious for his wants, and reason and necessity have united to induce him to join his own exertions to those which nature was making around him. This state of society precedes authentic history, though tradition has preserved the remembrance of the transition in the divine honors, which were rendered to Triptolemus, the great benefactor, who first taught mankind the use of wheat, and its superiority, as an article of food, over acorns, which till then had formed the most important part of their subsistence. It is impossible to look around upon external nature, without being struck with that beneficent dispensation, which tempering the wind to the shorn lamb, aids the efforts of man in his exertions for subsistence, and partially supplies them, where his ignorance and condition have left him yet to acquire the necessary lesson of self-dependence.

The Buffalo, in their annual migrations almost from the tropical to the polar circles, taught by an instinct more unerring than reason, where the grass of the prairies is most abundant and succulent, are followed by our own aboriginal race; while the Bosjesman follows the locusts in their periodical flight across the sandy deserts of southern Africa, and both find the means of subsistence in those countless moving colonies, among the most wonderful works of Providence.

Indeed, the regularity and immensity of the living columns, which traverse earth, sea, and air, to fulfill the purposes of their own existence, and to furnish to man the means of support, are witnesses of the existence of a Creator, which none can withstand but "the fool, who sayeth in his heart, there is no God." They are offered equally

to the human race, whether civilized or barbarous; but unfortunately the life of the savage is a life of abundance and want, of repletion and destitution. Suffering does not bring wisdom, nor experience precaution. Even among the Indian tribes upon our own frontiers, many of whom have been in contact with a superior race for generations, I have been amazed at the utter improvidence, which makes part of their habits, I might almost say of their moral constitutions. Recklessness and indolence concentrate their lives in the present. The past furnishes no profitable lesson; the future no rational anticipation. The little corn they rudely plant is almost consumed before maturity, but when the trial comes, and it comes often, and continues long, if they do not know how to avert it, they know how to meet it; for they suffer and die with rare equanimity; of which indeed we read examples in the lives of the ancient Stoics, but of which modern society exhibits few instances.

It would be an interesting and instructive subject of historical speculation to trace the progress in the various branches of human food, as well the improvement in their quality, and the increase in their quantity, as the successive discovery of their adaptation to the purpose of subsistence, whether as mere condiments, or substantial articles of support, and their migration from their original regions, and acclimation in the other portions of the globe. Some plants from their habitudes are confined to peculiar districts, and climates, while others, and those fortunately the most valuable, are universal travellers, if I may so speak, and establish themselves, wherever man is found to need their aid, with a wonderful facility of accommodation to the natural circumstances of their new position. All the cereal grasses we cultivate in the United States, wheat, rye, barley, rice, almost all the fruits, as well as the objects of horticulture, are emigrants from the old world, and most of them from the oldest portion of it, where the human family was first planted, and whence they went forth to "replenish the earth, and subdue it." But we have one precious indigenous gift of nature, the Maize or Indian corn, admirably adapted to the waats of a new country, and without which indeed the progress of ours, and especially of the vast regions on the Mississippi and its tributaries, would have presented far greater obstacles to the enterprising settlers, than those they have surmounted;

and surmounted with such results, both of population and prosperity, as find no parallel in the history of human emigration. Our American grain, for such it is emphatically, has furnished food not only for man, but for his faithful co-laborers, the domestic animals, that have taken part in his work; and scarcely does he open a nook in the forest, before the harvest comes to meet his wants. Let other regions boast their treasures in the bowels of the earth; we find ours in the productions it sends forth, and in the life of industry and virtue, which their healthful pursuit assures and preserves.

The change which cultivation has made in the characteristic properties of plants, is one of the most curious subjects of inquiry. There is no reason to doubt, but that all of them have been greatly improved in their qualities by the care of man; we know that many of them have, and some indeed to such an extent, as would seem to indicate a change of structure, whose laws are beyond our reach. The Upas tree, dealing death to all around it, that creation of a monstrous imagination, has no prototype in nature. But there are many plants with poisonous qualities, destructive of animal life, and several varieties of these have been divested of their noxious properties, and rendered safe articles of food. Among them is the peach, which in its wild state belongs to this family; transferred and cultivated, it becomes one of our most delicious fruits. And so with respect to the celery plant, originally a poisonous vegetable, but now converted into an edible one, and peculiarly acceptable, because it comes when our horticulture has no other fresh supplies to offer us.

The laws which regulate this conversion, as well as those which adapt the structure of poisonous vegetables to the performance of their peculiar functions, are yet and perhaps will ever remain mysteries to human science. The seeds of preservation and destruction lie side by side together. How properties so different are elaborated under circumstances to our observation so similar, or rather identical, is among those wonderful agencies whose effects are forever before us, while the process of their operation may be impenetrable to human sagacity. The same food which supplies the growth of the most nutricious grain, furnishing the principle of life to the animal creation, supplies also the growth of the most baneful plant, furnishing the principle of death to every living creature. Who can tell

why or how the edible mushroom, a pleasant and healthful article of subsistence, is found in direct contact with its congener of the same family, the poisonous fungus, so destructve to animal organization, and escapes its contamination? As in many other operations of nature, we have only to believe and wonder.

The sun and the planetary spheres, which float around in the regions of space, and still more the wonderful extent of creative power, which the researches of modern astronomy have revealed to us, and which human wisdom can neither measure nor comprehend, awaken conceptions of the divine attributes that would seem rather to belong to a higher state of existence, than to the imperfect condition in which we are here placed. And yet, when we survey our own earth, and contemplate the infinite varieties of animal and vegetable life on its surface, from the simplest structure to the most complicated organization, everywhere fulfilling their appropriate functions, we find that, near and remote, we see equally the hand of God, even if we have not faculties to understand his purposes, or the laws he has imposed on the system of nature. How wonderful the various species of animals, having each its appropriate duties and each forever kept within the sphere assigned to it!

And equally wonderful is the diffusion of vegetable organization, as seen in its vast variety, and in its extent in all regions of the globe. But, who shall count the individuals composing these families, and tell the number of animals and plants now in existence, and made and sustained by the same Creator, who placed us here, with powers not indeed to fathom his designs, but to see darkly what we shall see clearly, when our pilgrimage is ended.

Naturalists have estimated that there are 1,200 different species of quadrupeds; 6,800 of birds; 1,500 of reptiles and amphibia; 8,000 of soft or molluscous animals; 3,000 of fishes; 50,000 of insects, which are known to exist; and there are probably not less than 200,000 different species of animals, besides perhaps 100,000 of animacules, invisible to the naked eye. Of plants, more than 56,000 varieties have been collected, and the whole number in the earth and seas may not be much less than half a million.

And as continual investigations extend our knowledge, we are daily adding to our acquaintance with the mighty mass of living nature,

whose boundaries are known only to Him who "looketh to the ends of the earth and seeth under the whole heaven." And dominion over all these objects was committed to man by the Creator, "over the fish of the sea and the fowl of the air, and the cattle, and over all the earth, and over every creeping thing, that creepeth on the earth." And this dominion he has exercised for six thousand years, and where is he? He has scarcely reached the frontiers of his own kingdom! He is familiar with some of the objects with which he has been placed in contact; but what does he know of the properties, of the purposes, of the uses indeed, even for himself, of this immense creation, teeming with life, "the wondrous works of Him, which is perfect in knowledge?" Almost all he knows he learned by accident; isolated facts, acquired without investigation, and employed without combination. Recently, however, and especially within the present century, a spirit of inquiry has been awakened, and science has directed her researches to this great field of observation. Many of the principles of animal, as well as vegetable organization, are ascertained with useful precision. The domestic quadrupeds, both as laborers and as contributors to food, have engaged the attention of acute and zealous enquirers, and their useful properties have been improved in a degree that seems almost to approach towards creative power.

Bakewell, the most renowned name in this branch of agricultural economy, possessed rare powers of observation, with that devotion to his favorite pursuit which is sure to lead to excellence, and by watching the qualities of individuals, and selecting those only of breeding stock, which exhibited commendable points, he succeeded in laying the foundation of that eminence, which England has attained in this useful department of knowledge. And he thus produced varieties, possessing in a wonderful degree the property of abundant supplies of flesh, of fat, of wool, the capacity to improve, with the least expenditure of food, and a kindly disposition, ensuring easy management, whether for labor or for the other purposes of the stock department of the farm. And not less encouraging has been the advance in vegetable physiology, and especially in the knowledge of the composition of plants, which chemical analysis has afforded, to which I have already alluded, and the analogy which exists between them and

animals in the necessity for food, and in the increase and application of it by properly prepared manures, and by improved processes of cultivation, which have wonderfully increased the productive power of the land, and augmented the quantity of human subsistence in a ratio without previous example in the history of husbandry.

Chemistry, especially, has furnished the most efficient aid, and has done more than any other agent to give a scientific character to the pursuits of the farmer. And navigation, too, has contributed its share, and among other benefits has brought the exuvia of a bird from the islands of the Southern ocean, and gypsum, heretofore a useless rock, from the regions of the north, to increase the natural fertility, where it exists, and to confer it where it is wanting. And well it is for the countries of the earth, more so indeed for many others, than for our own, that improved systems of tillage are adding wonderfully to the capacity of production, and thus preparing subsistence for an augmented population, whose increasing necessity is continually pressing upon the existing means.

Here, and for ages, we can have no such fearful conflict to apprehend between the supply and the demand; until, indeed, our whole vast domain shall be occupied and devoted to its great purpose of human support. But elsewhere, among many of the nations of the old world, the quantity of land in tillage cannot be greatly increased, and it is only by improveed modes of culture, that it can be made to feed the people who will occupy it. But after all, who so presumptuous as to undertake to limit the field of discovery, and to pronounce the decree *thou shalt go no further*, in our investigations into the adaptation of organized matter to the purposes of human subsistence, in quantities and under circumstances to justify its employment?

What we have already done in the exercise of our "dominion" over the works of nature, insignificant indeed, when compared with what we have left undone, is still an encouragement to go on, and an augury of future success. We may now answer the question put to Job: "Canst thou send lightnings, that they may go and say unto thee, Here we are." Yes, we have subdued that terrible element, and made it the messenger of man. And we have "drawn out Leviathan," and we have learned many of the "ordinances of H

ven." May we not yet teach the Unicorn to "harrow the valleys after us," and make our "conquest" of other animals, now either unknown, or unknown as objects of human food? And have we no further discoveries to make in the vegetable world? No new plants to find, and no new qualities or modes of application in those already known to us? Have we reached the boundary of agricultural improvement, or shall we not be able by increase of knowledge more and more "to satisfy the desolate and waste ground," and "to cause the bud of tender herb to spring forth" where never herb grew before, and multiply it a hundred fold, where it already grows? It is equally our duty to avoid the extremes of presumption and of despondency; to follow the career before us, fulfilling our own assigned task, and leaving events to him "who sealeth up the hand of every man, that all men may know his work."

We have an indigenous plant in our own regions, that judicious cultivation might change into an important object of supply, and which, from its habits, might occupy positions unsuited to any other vegetable production. It is the wild rice, which grows in many of our small northwestern lakes, and furnishes an agreeable and substantial article of food, that I have been glad to procure from the Indians, when in their country, and whenever their supply, always indeed very limited, was not exhausted by waste or necessity. Fortunately they cannot consume the seed, as they often do of the few plants they cultivate, when under the pressure of temporary want; less provident than the beaver, from whom they might learn a profitable lesson; for the wild rice is self-propogated by the annual fall of the grain, which buries itself at the bottom of the water, to germinate at the proper season. It is gathered by the squaws, who pass over the liquid fields in their canoes, bending the stalks, and striking the heads, a small portion of whose contents is thus secured; leaving, with characteristic indifference, the rest of the immense harvest to the birds and to the water. Among all our aboriginal tribes, who preserve their primitive manners, the women are the laborers, as there are but two duties the men can perform without disgrace, the pursuit of their enemy, and the pursuit of their game. For such is the law, which savage power imposes in defence of its own indolence. But this superiority of condition is not confined to a barbarous state

of society. Its privileges are maintained with slow yielding tenacity, even where Christianity and civilization have established their sway, and we are told by the earliest English writer on agriculture, Fitzherbert, a venerable judge of the Common Pleas in the sixteenth century, and in the quaint language of his day, that "it is a wife's occupation to winnow all manner of corn, to make malt, to wash and wring, to make hay, *shere* (an ancient word for *reap*) corn, and in time of need to help her husband to fill the muckwain or dung cart, drive the plow, load hay, corn, and such other. And to go or ride to market, to sell butter, cheese, milk, eggs, chickens, capons, hens pigs, geese, and all manner of cornes." The fair portion of my audience will probably agree with me, that the improvement in manners, since that period, has not been less striking or commendable than the improvement in agriculture.

In the distribution of plants, there are many valuable ones whose habits man has not yet been able, and perhaps never will be, to adapt to very different climates; and there are others whose almost universal cultivation in certain districts give a peculiar character to their agriculture. Predominant among the former, for its value and the antiquity of its culture, is the Olive; and it was only in its natural country, that I learned how precious it was to man. It was the symbol of peace in the ancient Pagan world, and its principal product, oil, associated with wine, is the figurative representation of prosperity and rejoicing in the poetical language of Scripture. I found in Greece that the fruit was an acceptable substitute for meat, and that a few olives, with bread, constitute the ration of the soldier. The tree approaches, if it does not equal the cedar in longevity; for there is a plantation yet bearing at Terni, in Italy, which it is thought is composed of the same trees, described by Pliny, as growing there in the first century.

The Mount of Olives, which overlooks Jerusalem, derives its name from these trees, existing there in the earliest ages, and at its foot, divided from it by the brook Kedron, is the garden of Gethsemane, forever memorable as the scene of the passion of our Savior. Eight olive trees, bearing every mark of extreme age, are yet growing there; and tradition has invested them with a sacred character, as cotemporaries of the life and death of Jesus Christ. No believer in

Christianity can gaze upon them as I have done, without feeling the most powerful emotions—without feeling that force of association which connects us with names and deeds long since passed away, when we stand upon the places they have made immortal. The world contains no such spot as this, where the mission of the Redeemer was fulfilled, and where he pronounced its termination in the emphatic declaration, "*It is finished.*"

The fig tree, the date-bearing palm, the cocoa-nut tree, the bread-fruit tree, the banian and the banana tree, in the warmer regions of the earth, and the chestnut tree in the southern portions of Europe, each furnishes a harvest for the population; useful food that takes the place of bread, and goes far to make up the consumption of the country.

Here, where everything is new, and human enterprise is left unshackled by law, habit or prejudice, it is difficult to form just conceptions of the immense value of certain products whose culture is appropriated by peculiar districts, almost to the exclusion of every other article of agricultural industry, and by which division of labor, superior skill is acquired, the result of which is exhibited in the superior quality and quantity of the favorite production. Such is the grape in the wine-bearing regions, the tea-plant in China, the hop in some districts of England, barley in others, and yet in others clover, or the leguminous plants; and the high state of tillage in that country may perhaps be better appreciated by a single fact than by the most labored panegyric, and one such fact is that sixty tons of turnips have been raised from a single acre. That most useful vegetable, and the family of clover have been called the main pillars of English agriculture, which have contributed more to preserve and increase the fertility of the soil, as well as to enlarge and improve the breed of domestic animals, than any other production of the farmer. The existing condition of our own country, both with respect to labor and capital, render this high state of tillage inapplicable to many portions of it, and especially to our new regions, just passing from the dominion of the forest to the dominion of the plow. In England, comparatively speaking, land is everything and labor nothing. Here the position is reversed, for labor is everything and land nothing; and the emigrant who reclaims his farm from its natural

condition, is requiaed by the stern law of necessity to tax its productiveness to the utmost extent. But as industry is almost sure to bring prosperity, and with it augmented means, agriculture feels the effect of the general improvement, and in turn partakes of it and contributes to it.

Upon the continent of Europe, especially, and to some extent in England, I was struck with three principal facts, which, though they have hardly found their way into the books of travelers as characteristics of the features of the country, yet give to it a peculiar, and to some extent, an unpleasant aspect to an American. These are, if not the absence, the paucity of forests and of fences, and also of farm houses, indicating by their appearance that they belong to the owner of the land. Not that these objects are entirely wanting, except in certain districts, but they are often "few and far between." In many portions of the country, trees, except fruit trees, do not meet the weary eye in many a long mile, and woods are so limited in extent when they do occur, and the trees are so inferior in size and grandeur to those in our own mighty forests, that they excite no admiration and give little pleasure to the traveler from this land of gigantic vegetation. The country often looks naked, fatiguing to the view, though rich in its cultivation and in all that labor and capital can procure. Nor is it relieved by the neat and beautiful farm houses which with us almost always variegate the prospect, and afford resting places where the eye loves to repose, and the mind to contemplate the prosperity and independence of the proprietor, the type of that large class of intelligent farmers who constitute one of the main pillars of our social and political edifices. And this is more particularly the case upon the continent where the rural laborers cluster in villages, a custom probably derived from those unquiet feudal times, when violence gained strength by the weakness of the law, and the population collected together under the protection of the Manorial castle, generally constructed in a position to be most easily defended. But whence soever came this general practice, it leaves large districts of open land, and essentially mars the beauty of the country.

Splendid and magnificent residences, looking out upon extensive lawns and noble parks, and encompassed with all the heart of man can desire, and often seen through long vistas of trees, are stately

sights in Europe, which our country nowhere presents, and I trust never will present. So much magnificence, if not the cause, is the sure handmaid of misery, and cannot well exist without it, as its contributions must be levied upon the productive means of the nation. Let industry with its rewards be open to all, but in their exertion or application let us avoid those evil tendencies, whether legal or traditional, which favor a system of family accumulations, and thus distribute God's blessings so unequally that the great mass of a people would seem to be made to minister in wretchedness to the pride and pleasures of a fortunate class, which with the disposition, possesses the power to maintain its privileges, cost what they may of human happiness.

This inequality of distribution can be better illustrated by a single fact than by the most labored description; a fact as conclusive as it is lamentable. Out of a population of 15,000,000 which England contains, there are scarcely 30,000 land owners; only one person with a right to tread the soil of his country, except in the public highways, to be found in every 500 inhabitants! What a deplorable element of danger and distress is this in the statistics of national property! And the future holds out no solace for the present. The power of acquisition belongs only to riches, and the estates are augmented by continuous additions, thus diminishing their number while their extent is fearfully spreading, at the expense of the best interests of the country.

No exertion of intellect, no effort of industry can pass the barrier, and enable the man who commences life in poverty to finish it in the proprietary possession of one of those beautiful farms which variagate the surface of England, and which are cultivated by tenants and not by owners. I say that neither intellect nor industry can look forward to such a result; for, though it sometimes happens, it happens so rarely as to furnish no rational motives for perseverance, and but proves the extent of the principle by the very paucity of the exceptions. France exhibits a much more healthful condition—thanks to the political agitations which have swept away the feudal privileges and feudal tenures, and have rendered the acquisition of land so accessible to the great body of the people, that there are now more than 4,000,000 of seperate real estates, each held by its own proprietor.

How different from England is the spectacle which our system presents to the world? Here land is easily attainable, and is equally open to all, and though a young man in the West may now, by steady industry, become the owner of a farm, more readily than in any other age or region of the globe, yet public opinion seems to be rapidly settling into the conviction, that it would be equally politic and just to increase the facility of proprietorship by gratuitous grants of land to actual settlers, without the immediate means of purchase, thus enabling them to direct their energies unembarrassed to the support of their families, and to the conversion of the forest to the great purposes of improvement and production.

And nowhere else on the face of the globe is man invoked by stronger motives to fulfil the great duty of cultivating the earth, and of elevating that duty to a higher standard, by associating with it the cultivation of the human intellect, and the general diffusion of an adequate and suitable education. We have already taken a survey, a mere glance, rather, of the vast field of labor, including all organized and unorganized matter, which is committed to the care of the cultivator, and where the highest intelligence may find full employment with reasonable certainty of success. It is time to banish the last traces of that ignorance which introduced many superstitious notions in agriculture, both as articles of faith and practice, and which are well denominated "heavy fetters," by Lord Kaines, binding the human intellect in their folds.

The strong man has at last awakened, if not arisen, and as the faculties are enlightened these bonds are broken; and looking back upon the past, especially from this country, we find it difficult to appreciate the restraints they exercised upon mankind; and they furnish the most irrefragable proofs of the lamentable ignorance of those by whom they were forged and borne. Many of these delusions, for such they are, yet survive, few of them, however among us; but, wherever they prevail, they are the companion and cause of ignorance, operating to the injury of agriculture and to the oppression of the intellect. A chapter upon this subject containing a brief review of those notions, many of them superstitious, and all of them weak and injurious, would be an instructive portion of history, and would teach us to rejoice the more that education had come to dispel the

darkness in which alone they can maintain their sway. Where the operations of nature are properly viewed and studied by enlightened communities, if the laws that govern them are not fully developed, still their exercise is so well comprehended as to prevent superstition from establishing its empire among them. There is no need of fabulous deities and spirits, of supernatural agents, to account for what is known to be regulated by established principles wisely ordained by Him, who is God over all, though the whole process may never be revealed to us. A belief in the spontaneous generation and transmutation of plants, in lunar periods, in lucky and unlucky days, and in many similar errors, existed in the earliest times. And these and kindred notions are not wholly eradicated. A conviction of the dominion of the moon and of the celestial signs was once universal, and though circumscribed, it is not yet wholly annihilated. We are told in the "Husbandman's Practice or Prognostications," that we must "set, sow seeds, and plant, the moon being in Taurus, Virgo, or Capricorn. And all kinds of corn in Cancer. Graft in March at the moon's increase, she being in Taurus or Capricorn."

And poetry, too, comes to enliven, if not to enlighten this grave subject; for in Tuper's Five Hundred Points of Husbandry, under February, we have the following lines, equally creditable to the judgment and imagination of the author:

> "Sowe peason and beans in the wane of the moon,
> Who soweth them sooner, he soweth too soone,
> That they with the planet may rest and rise,
> And flourish with bearing most plentifulwise."

Before, however, we condemn these illusions with too severe a judgment, let us recollect the contents of our own almanacs, preceded by a great figure, exhibiting a naked man, showing the influence of the celestial signs on the human body, and followed by regular prognostications of the weather, from January to December, arranged with wonderful precision, "about these days;" and where many an enquirer, anxious for an appointed excursion on a pleasant day, seeks to anticipate the result, and believes in the wisdom of the astrologer, especially if he find the prediction agrees with his own hopes.

Here, in this country, however, where there are few of these errors to correct, which lead to much practical injury, education is not the less necessary for higher purposes; though not indeed to redeem our husbandry from a practice which, in some of our earlier settlements

in this State, prevailed to a considerable extent, as I have been told by those who witnessed it, that of drawing the manure from the barnyard to the ice of the river, that it might be carried off in the spring with the least trouble to the farmer, who was thus enabled to commence his agricultural operations with clean premises. It needs no instruction to change all this, but it needs it to carry mental improvement, where such improvement would produce the most important results.

The portion of our population engaged directly or indirectly in the culture of the soil is equal, perhaps, to two-thirds of the whole number of our inhabitants, and the career of advancement open to them is equally gratifying to the patriot, the philanthropist, and to the politician. What a glorious subject of contemplation would be a community, stretching along these vast frontiers, each family occupying its own farm, and with all the elements of prosperity and intelligence within their reach! I trust that a patriotic and liberal policy, suited to our age and circumstances, will enable every man to become a landholder, thus adding the bonds of interest to those of affection, which binds us to our country, and adding also to the stability of our institutions, which well and wisely extend to each the care of all. Men are more valuable than land, or rather land is only truly valuable where possessed by men for the purposes of cultivation.

In the whole range of public duties, I know of no one more important than the preparation of a well-digested system which would ensure to every one, desirous of occupying and cultivating it, a tract of land in our immense national domain, which his industry might reclaim, and where he and his family might be prosperous and contented. Talk of adding to the wealth of a nation—what would add more to it, than such hosts of producers, laboring for themselves, and where the soil and climate offer their richest rewards to human industry? Talk of adding to the strength of a nation—what would add more to it than armies like these, ever ready to defend their country against all dangers, whether from foes without, or from foes within? Talk of adding to human happiness, to the progress of human intelligence, to the elevation of man in the scale of being—what would add more to all these elements of power and prosperity, so dear to every man who loves his country and his countrymen? Talk

of adding to national glory—what would be more truly glorious, more encouraging, indeed, to the lovers of freedom through the world, than such a measure, flowing from such motives, and leading to such consequences? The power of acquiring land with ease and certainty; the power to manage it, uncontrolled by legal or traditionary embarrassments; the right of descent, without the invidious and unjust distinctions of primogeniture; exemption from tithes, from commons, from manorial privileges, and especially from that curse of an agricultural district, the game laws; the absence of tenantry, unknown as a class among us, where the owner ishis own tenant; the right to aspire to the highest offices and honors of the country, not a mere barren political declaration, but a right practically enjoyed, as we know from the experience of every day—all these advantages, and many more, indeed, are possessed by the farmer in this country, and elevate his condition far above those whose lives are devoted to the cultivation of the soil of England.

My fellow citizens, I come to you from a scene far different from this; from a scene where there was neither eye nor heart for the peaceful and prosperous laborers of agriculture; but where great interests were committed to doubtful and excited legislators, and where there was too much reason to fear, at one time, that we should sow the wind, while you would reap the whirlwind. And such would have been the harvest of calamity, had not a mighty voice been heard, when the tempest raged the loudest, and speaking louder than the tempest, said, "Peace, be still,"—and all was still. But this voice did not issue from the seat of your general government; it came there, borne upon the four winds of Heaven; from the East and from the West, from the North and from the South; from the American people, and almost the whole people; who, feeling the peril of their country, rose up in their power, and rebuking their servants, commanded them, promptly, and by wise legislation, to restore peace and harmony to the Republic—and it was done. The great cause of freedom and self-government, not for us alone, but for the whole human race, has been tried and gained.

Many an eye watched us in Europe. Many a heart throbbed with hope or fear. With hope or fear, as he who watched us believed that man was made to govern himself, or to be governed by here-

ditary rulers, knowing that for long years to come, for ages indeed it may be, the great experiment was on trial here, and if it failed by our intestine divisions, it failed for mankind, till again renewed by time and blood, and oppression. Great was the danger, and great the success. Blessed be the God of our fathers and our own God, we are yet one country, one people, one government, and so may we continue, till human institutions shall have fulfilled their functions, and have been succeeded by the advent of that period, foretold by prophecy and foreseen by faith, when "the Kingdoms of the World become the Kingdoms of our Lord, and of his Christ, and he shall reign for ever and ever."

Lenawee County Agricultural Society.

J. C. Holmes, Esq., *Sec'y Mich. State Ag. Soc.*

Dear Sir:—In compliance with the 11th article of the Constitution of the Michigan State Agricultural Society, I have the honor to report to you the transactions of the Lenawee County Agricultural and Horticultural Society, for the year 1850. The second annual meeting of the society for the election of officers, was held at Adrian on the 26th day of January last, when the following persons were elected officers of the society for the ensuing year, viz: For President, Joseph Gibbons ; Vice Presidents, M. A. Patterson, J. D. Thompson, Jonathan Berry, Artemus Allen, T. J. Faxon, Wm. Camburn, Elijah Brownell; Recording Secretary, A. G. Eastman; Corresponding Secretary, C. A. Stacy; Treasurer, L. G. Berry; Executive Committee, Amos Hoag, Geo. Kennedy, Geo. L. Crane, B. B. Steer, M. M. Thorn, Walter Wright, Garret Ten Brook. Some alterations were made in the constitution of the society, the most important of which, was in the second article in substituting fifty cents for one dollar, so that a person becoming a member, may continue such by paying fifty cents annually thereafter instead of one dollar as was required before the amendment. This alteration in our constitution has already had and will continue to have beyond a doubt, a very beneficial effect upon the finances of the society ; a tendency to increase instead of diminishing its funds, as were the fears of some at the time of making the amendment. It will be two years on the 27th of January next, since the first organization of the society by a handful of individuals, who assembled at the Court House, in Adrian, for the purpose; since which it has been very successful and prosperous, to the great satisfaction and good wishes I trust, of the farmers of this county, as well as all other classes interested in its well being. The executive committee met on the 15th day of March last, and prepared and published a list of premiums to be offered at the next annual fair, (a copy of which, with a list of Judges appointed, is herewith sent you.) A resolution was at the same time adopted by

the committee, that the show grounds for the next fair be enclosed, and an admission fee of twelve and a half cents be charged those who are not members of the society. This resolution was carried into effect at our annual fair, and gave general satisfaction. The second annual fair of the society was held at Adrian on the 3d and 4th days of October. The weather was fine, and the exhibition of stock of all kinds, (beast and fowl) the various productions of the earth, domestic manufactures, and in fact almost every article usually exhibited on such occasions, far exceeded that of last year both in quality and amount. The attendance both of men and women, exceeded by hundreds the attendance of last year; all going to show beyond successful contradiction, the beneficial results and tendencies of agricultural societies.

I trust I shall not be considered as saying too much, in speaking of the fruit exhibited at our fair, (and I speak from personal observation) that it nearly if not entirely, equalled both in quality and quantity, the fruit exhibited at the State fair. The display of flowers, needle work, paintings, &c., was most beautiful and tasteful, and did great credit to the *fair ones* who presided at, and liberally contributed to this department. The judges on fruit have held weekly meetings for the examination and inspection of fruit during the whole season, from the ripening of the earliest cherry to the last week previous to the fair.

I am not able in this report to give the probable average yield of crops in this county the present year, but they are said to be much larger than last year, particularly the wheat crop.

By the 5th article of the by-laws of our society, it is made the duty of the executive committee, at each annual meeting of the society, to make a report of the general condition of agriculture, horticulture, and manufactures in the county. That report is not yet prepared; as soon as it is, a copy will be forwarded to you, in time, I trust, for publication with the transactions of the State society.

The annual address was delivered on the second day of the fair by Doct. M. A. Patterson, of Tecumseh, to a multitude that surrounded the stand, and listened attentively to the eloquent, practical and scientific remarks of the speaker. The address contains much valuable, scientific, and practical information, which every farmer should know and understand.

You will herewith find a copy of the premiums awarded, together with a copy of such reports of the awarding committees as are not objectionable on account of their entire brevity. It is very much regretted that some of the judges did not have sufficient time to make a full and detailed report upon the articles coming under their notice and adjudication. The finances of the society are in a prosperous condition. The society has received from the county, during the present year, pursuant to the act of the Legislature of 1849, the sum of $200, and for membership and admission tickets to the county fair, about $486. The amount paid out for premiums and incidental expenses, is about $585, leaving a balance now in the treasury of something over $200.

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REPORT OF EXAMINING COMMITTEES.

The committee appointed as judges of farms presented for the premiums offered by the Lenawee County Agricultural and Horticultural Society, report that in the early part of July they attended to the duties of their appointment. Although but few farms were entered, the remote situation of some from others, rendered it necessary in order to view them, to cross the county in a diagonal direction, from nearly opposite corners, thus affording an excellent opportunity of witnessing the progress of agricultural improvements, and your committee would take this occasion to express their admiration of the general appearance of the improved portions of the county through which they passed, as giving evidence of enterprise and thrift, at least equal in their estimation to that of any other section of our State with which they are acquainted.

The first farm examined was that of Stephen Perkins, of Madison. In this they found combined many excellencies. Nature and industry had both done their part to render it beautiful. Situated on a plain of almost level and unbroken surface, possessing a soil easy of cultivation, and of fertility rarely surpassed, and surrounded by a prospect rich in natural scenery, it is a place on which the owner may justly set a high value. Mr. Perkins' system of cultivation appears to be good, and the appearance of his crops gave ample evidence that his industry had not been bestowed in vain. On this farm, the

superior condition of the fences and the number of durable and well constructed gates, cannot fail to attract notice.

Your committee would also refer to the farm of Jeremiah D. Thompson, as one deserving special notice and praise. In situation and soil nearly similar and adjacent to the one previously adverted to. The some general remarks may apply equally to both, and render a more extended notice unnecessary.

The farm of Amos A. Kinney, Seneca, your committee examined with unexpected gratification. Situated in a densely timbered section, and remote from the older earlier portions of the county, this place presents itself to the eye of the traveler, in striking contrast with the great majority of farms located in a timbered country of no greater age in cultivation and improvement, and gives the impression that the owner must have commenced operations in possession of a large cash capital. But such, according to information, is not the case. Mr. Kinney made a beginning in the wilderness fourteen years since, with limited means, but with untiring industry, and has accomplished in that brief period, an amount of improvement which few men need complain of, if performed in double the time.

One of the first things striking the attention of the beholder, is an air of neatness and an unmistakable evidence of system that is manifest in all parts of the farm, rendering the conclusion almost irresistable, that Mr. Kinney began right and finished right, as he went along, and feels determined continually to keep things right. The growing crops and the deep plowing of the fallows, show thorough cultivation; and the appearance of the fences are worthy of special notice, both as respects their superior construction, and the neatness with which they are kept clear from bushes, or other unsight and valueless vegetable growth. The buildings on the farm are good, and constructed with an eye to durability as well as taste. The orchard and fruit trees promising and thrifty. Seeing so little not worthy of praise and so much to commend, your committeee are unanimously and unhesitatingly in favor of recommending that the first premium on farms be awarded to Amos A. Kinney, of Seneca.

Another farm coming under our examination, was that of S. V. Miller, of Macon. Possessing a rich soil and a good situation, it may by judicious management be made one of the best in the county.

The most thrifty and luxuriantly growing piece of corn witnessed during our jaunt, was on this farm; and its freedom from weeds, and the loose and friable condition of the soil told plainly of good cultivation.

Your committee have decided to recommend the award of the second premium to Samuel Rappleye, of Macon. His farm, although not favored by Nature with as good a soil as some, and although the improvements are not brought up to the standard of excellence that is aimed at by the owner, shows plainly a good and systematic plan of cultivation. One plan worthy of high commendation, which Mr. Rappleye has commenced and is carrying forward, is a system of under-draining. This is undoubtedly adding greatly to the productiveness of his farm, as was plainly seen in a portion of a wheat field through which one of these drains passed. On a piece of ground which your committee believed, without the drain would have been entirely too wet to raise wheat successfully, was a rank and heavy growth of that grain, which since harvest has been estimated upon data, based upon the actual measurement of a part of it, to yield forty bushels to the acre. Many things deserving commendation were observable on Mr. Rappleye's farm, and in his management, which are not needful to particularly point out.

In conclusion, your committee would briefly express the satisfaction they felt on witnessing the decided improvement in the agriculture of our county, and their regret that so few farms were offered to compete for premiums, believing that the benefit derived from the distribution will be increased in proportion as the number of farms presented for competion is enlarged.

THOMAS CHANDLER,
WALTER WRIGHT,
PHILO C. MILLS,
Commiteee on Farms.

REPORT OF THE COMMITTEE ON FLOWERS, PAINTINGS AND FANCY NEEDLE WORK.

"We love the flowers, e'en the last late flowers
That shed their fragance on the chill damp air
Of an October morn, like love in death—
Who does not love a flower!"

The skill that hath the power to make the loved absent friend present, and portray so vividly the dear home scenes, we fancy for the moment it is *reality*—the *artist's* skill we almost reverence.

To the busy needle's fairy magic touches, we pay all due deference.

The committee to judge of the merits of the flowers, paintings and fancy work, would then, Mr. President, and gentlemen of the agricultural society, return our thanks for the honor bestowed upon us in our appointment, and also express our deep interest in the department assigned to our superintendence. Wherein we have failed in faithfulness or efficiency, believe us, is not because of a determination so to do, but that it is our first experience. We have been highly pleased with the articles presented to us for examination.

The boquets have not only presented a choice variety of flowers, but they have in most instances been arranged with much taste.

No. 10, containing thirty-six, the greatest variety, was presented by Mrs. Volney Spaulding, of Palmyra, and is in our estimation entitled to the 1st preminm.

No. 30, containing twenty-eight vareities, presented by Mrs. Lorenzo Tabor, we think worthy of the 2d premium.

No. 25, containing ten choice varieties of dahlias, mingled with other flowers, and arranged with unequaled taste, was presented by Miss Emma L. Backus and entitled to the 3d premium.

Many other boquets of great beauty were presented. Among these we cannot forbear mentioning those sent by Miss Fanny Hart, Miss Harriet L. Woodbury, Miss Laudelia E. Merritt, Miss Eliza Truax, Mrs. Lothrop, Mrs. Strong, and one of great beauty presented by Mrs. C. Smith, of Toledo, all of which are entitled to great praise. Mr. A. Truax brought nine varieties of dahlias, and also a large branch bearing three blossoms, one of a rich purple color, the other two variegated.

A mammoth dahlia, measuring ten feet in highth and loaded with beautiful flowers, was sent to the committee by Mr. James Helmes.

Two beautiful boquets of paper flowers, almost surpassing dame nature's own, were presented by Eloise R. Brittan, a Miss 11 years of age, and the committee would recommend that a premium be awarded to her.

For thirteen beautiful specimens of Daguerreotypes, executed by Mr. Geo. W. Merrick, we would recommend a premium. Three beautiful oil paintings were sent by Miss Harriet D. Barber, which we think are entitled to a premium. Six specimens of water colors were presented by Miss E. Allen. The needle work was beautiful and spoke well for the exquisite taste of the fair daughters of Lenawee. The worsted embroidery, No. 14, executed by Mrs. Lewis Hubbard, was decidedly superior to any other presented, but as it was not wrought during the present year, the committee were compelled by the rules of the society to withhold the justly merited premium.

No. 37, executed by Mrs. Williams, of Tecumseh, is entitled to the 1st premium.

No. 1, worsted work, wrought by Miss Caroline Kennedy, will receive the 2d premium.

Other pieces of worsted work, presented by Mrs. J. Ward, Mrs. L. C. J. Smith, Mrs. Jonathan Park, and Mrs. Walter Wright, all wrought with great skill, were before us, and merited much praise. Among the embroidered muslins, was one handkerchief, No. 33, worked with unequalled skill, by Mrs. L. C. J. Smith, which we think is well deserving a premium. The second in merit, a dress, No. 31, executed by Mrs. M. N. Halsey, we would recommend for a premium.

Among a variety of fancy articles, was a card basket, embroidered with beads, on perforated boards, No. 18, made by Mrs. S. Lothrop, which we think is deserving a premium. The second best card basket, No. 16, was presented by Mrs. M. M. Thorn, for which, also, we would recommend a premium. Several other articles of needle work were presented by the same ladies, and all executed with great neatness. Two specimens of mosaic work were sent in, which merited and received great praise. Several fine lamp mats were also presented, but those of the greatest beauty came too late for the premium. A beautiful little basket, No. 42, made by Miss Jane E. Hicks,

we think deserves a premium. A case of wax flowers was sent in by Mrs. J. French, and two elegantly bound books, by Mr. George Payne.

EMMA L. KEENEY,
MARY A. WINANS,
ANN E. WRIGHT,
ELIZA A. RAMSDELL,
Committee.

A. G. EASTMAN,
Sec'y Lenawee Co. Ag'l and Hort'l Society.

December 9, 1850.

LIST OF PREMIUMS.

CATTLE.

W. R. Briggs, Dover, Durham Bull 4 years old, 1st prem.	$3 00
T. C. Barber, Madison, Durham Bull, 3 years old, 2d prem.	2 00
A. J. Dean, Raisin, best 2 year old bull, 1st prem.	2 00
Edwin Underwood, Palmyra, 2d best 2 year old bull, 2d prem.	1 00
S. A. Hubbard, Franklin, best 1 year old bull, 1st prem.	1 00
Samuel Warren, Dover, 2d best 1 year old bull, 2d prem., Allen on Domestic Animals.	
S. Hollloway, Dover, best bull calf,	1 00
W. R. Briggs, Dover, 2d best bull calf, Allen on Domestic Animals.	
John Underwood, Palmyra, best cow and calf, 1st pre.	3 00
E. Allis, Rome, 2d best cow and calf, 2d premium,	2 00
J. D. Thompson, Madison, best milch cow, 1st prem.	3 00
E. Allis, Rome, best heifer calf,	1 00
Lenawee County, best yoke of oxen,	4 00
S. Holloway, Dover, 2d best yoke of oxen,	3 00
Town of Dover, best 5 yoke of oxen,	5 00
O. Hoxie, Palmyra, best yoke of 3 year old steers,	3 00
F. H. Graham, Dover, 2d best yoke 3 year old steers,	2 00
W. E. Daniels, Hudson, do 2 do do	3 00
A. B. Chaffee, Adrian, 2d do 2 do do	2 00
W. R. Briggs, Dover, do 1 do do	2 00

J. Miller, Cambridge, 3 2 yr. old heifers (Trinity) discretionary premium,	$3 00
S. Holloway, Dover, 3 year old heifer,	1 00

HORSES.

Eber Adams, Adrian, best stallion, (Blucher,)	5 00
do do do (Turk,)	3 00
S. F. Spafford, do best blood mare and colt,	5 00
O Holloway, Raisin, 2d best mare do	3 00
Marshall & Tayer, Adrian, best 3 year old colt,	3 00
Charles Blair, Franklin, 2d do 3 do do	2 00
S. Orcott, Hudson, do 2 do do	2 00
Walter Graham, Madison, 2d do 2 do do	1 00
P. J. Spalding, Adrian, do span match horses,	4 00
S. F. Spafford, do 2d do do do	3 00
Gilbert Gage, Dover, 8d do do do	2 00
B. Herrington, Hudson, Stallion, (Kentucky Lyon) discretionary premium,	2 00
L. H. Thompson, Dover, Stallion, discretionary premium,	1 00

SHEEP.

Wright & Hoag, Adrian, best buck, (Fr. Merino,)	3 00
Stephen Allen, Madison, 2d best do	2 00
S. A. Hubbard, Franklin, best Saxony buck,	3 00
do do 2d best do	2 00
do do 5 Saxony ewes,	3 00

SWINE.

Lenawee county, best boar.	
C. G. Smith, Fairfield, 2d best boar,	2 00
Garret Ten Brook, Madison, best sow and 6 pigs,	3 00
N. Mitchell, Madison, sow and 5 pigs, dis. premium,	2 00
A. Truax, Adrian, barrow hog,	1 00

FIELD CROPS.

Amos A. Kinney, Seneca, best one acre wheat, 1st prem.,	3 00
Amos Hoag, Adrian, 2d best do 2d premium,	2 00
Wm. Tolford, Madison, 3d best do 3d "	1 00
T. H. Graham, Dover, best one acre Indian corn, 1st prem.,	3 00
Wm. Beal, Rollin, 2d best do 2d prem.,	2 00
M. M. Thorn, Raisin, best one-half acre potatoes,	2 00

N. Ramsdell, Dover, 2d best one-half acre potatoes, 2d prem.,	$1 00
M. M. Thorn, Raisin, best one-eighth acre sweet potatoes,	1 00
S. W. Fenton, best one-fourth acre broom corn,	1 00
Wm. Tolford, 13 varieties potatoes, 3 years from ball, dis. prem.,	1 00
Elijah Brownell, Raisin, 1 large squash, dis. prem.,	50
Noah Woodford, Madison, 1 do do	50

BUTTER & CHEESE.

E. Kennedy, Madison, best sample of butter,	2 00
Mrs. F. Webb, Raisin, 2d best do	1 00
Mrs. E. Ruben, " sample butter, dis. prem.,	1 00
Mrs. Edwards, Adrian, best sample of cheese,	2 00
Charles Pratt, " 2d best do	1 00
W. Gilbert, Rome, large lot cheese, dis. prem.,	1 00

MAPLE SUGAR AND HONEY.

N. Randall, Dover, best sample maple sugar,	1 00
B. J. Williams, best 5 lbs. honey,	1 00
N. Randall, Dover, lot, dis. prem.	

FARM IMPLEMENTS.

Alex. Blake, Medina, best plow,	2 00
Isaac French, Adrian, 2d best plow,	1 00
Wm. Moore, " best harrow,	1 00
D. W. Baker, Palmyra, best ox yoke,	1 00
S. D. Baldwin. churn,	1 00
John W. Meach, Rollin, best 6 hand rakes,	1 00

FARMS.

Amos A. Kinney, Seneca, best farm, 1st premium,	6 00
Samuel Rappleye, Macon, 2d best " 2d "	4 00

FRUIT—APPLES.

J. S. Kies, Clinton, 69 varieties apples, 1st premium,	2 00
M. M. Thorn, Raisin, 26 do 2d do	1 00
T. H. Bailey, dis. prem., Thomson on Fruit, Small Work.	
Calvin Crane, Palmyra, best single variety, Thomas on Fruit Small Work.	
M. M. Thorn, Raisin, best lot early apples, Downing on Fruit.	
J. S. Kies, Clinton, best winter varieties,	1 00
Calvin Crane, Palmyra, 2d best do	1 00

PEACHES.

John M. Merritt, Franklin, best and greatest variety, $1 00

L. Tabor, Adrian, best single variety, Thomas' Small Work.

T. J. Ludlow, Adrian, Walter's Early, Thomas' Small Work.

APRICOTS.

C. Woodbury, Adrian, best apricot, Cole on Fruit.

C. Woodbury, Adrian, best single variety, Thomas' Small Work.

CHERRIES.

A. S. Cornell, Adrian, 1st premium.

Appollos Anthony, Palmyra, 2d premium.

James Jordan, Adrian, best single variety.

GRAPES.

B. F. Strong, Adrian, 1st premium.

Wm. Ten Brook, Fairfield, early grapes, premium.

STRAWBERRIES.

M. M. Thorn, Raisin, 1st premium.

A. Barnard, Adrian, discretionary premium.

PLUMS.

B. F. Strong, Adrian, 1st premium.

Samuel Lathrop, 2d premium.

B. F. Strong, best single variety, premium.

QUINCES.

F. A. Kenady, Ridgeway, 1st premium.

NURSERIES.

Steer & Co., Raisin, 1st premium, $3 00

C. B. Backus, Adrian, premium on egg plant, 1 00

John Mills, Adrian, rare specimen variety of pie plant, lately imported by him from England. premium, 1 00

FLOWERS, NEEDLE WORK, &C.

Ann E. Wright, Adrian, 2 worked foot-stools, premiums.

Mrs. Volney Spaulding, Palmyra, largest variety of flowers, 1st premium.

Mrs. L. Tabor, Adrian, 2d largest variety of flowers, 2d prem.

Miss Emma L. Backus, 3d do do, 3d do.

Miss E. R. Britain, best specimen artificial flowers, prem.

G. W. Merrick, best specimens Daguerreotypes, prem.

Miss Harriet D. Barber, 3 specimens oil paintings, premiums.

Miss E. Allen, 6 specimens water color paintings, premiums.
Mrs. Williams, Tecumseh, worsted embroidery, 1st prem.
Miss Caroline Kennedy, Adrian, worsted embroidery, 2d do.
Miss L. C. J. Smith, embroidered muslin, 1st prem.
Mrs. M. N. Halsey, Adrian, embroidered muslin, 2d prem.
Mrs. S. Lathrop, Adrian, embroidered card basket, discretionary premium.
Mrs. M. M. Thorn, Raisin, discretionary premium.
Miss Jane E. Hicks, Adrian, basket, premium.

MISCELLANEOUS ARTICLES.

M. M. Thorn, Raisin, paring machine, premium,	$1 00
M. M. Thorn, do Current Wine, premium,	1 00
Robert Parker, Adrian, iron cutter, (sleigh,) premium,	1 00
G. W. Merrick, Adrian, white top-knot fowls, premium,	1 00
Samuel Pond, Adrian, specimen Cochin China fowls, pre.,	1 00
Henry Phillips, best flour barrel, 1st premium,	1 00
E. Vandegriff, 2d " " 2d "	1 00
J. R. Smith, Adrian, Melodeon, premium,	2 00
J. S. Alvord, Madison, best wooden pump, premium,	1 00
M. Huntington, Adrian, window blinds, premium,	1 00
W. S. Wilcox, Adrian, best buggy, premium,	3 00
C. W. Hunt, " " trimmed rockaway, premium,	1 00
A. B. Chaffee, " peacocks, premium,	1 00

DOMESTIC MANUFACTURES.

Samuel Anderson, Adrian, spring bedstead, premium,	1 00
Robert Bidleman, Adrian, two-horse harness, premium,	2 00
E. Linnell & Co., Adrian, fine boots, premium,	1 00
Mrs. E. L. Selleck, Adrian, best rag carpet, 1st premium,	1 00
Mrs. M. E. Palmer, Dover, 2d best do., 2d premium,	1 00
S. G. Conklin, Raisin, wool carpet, premium,	2 00
Richard Kent, Adrian, flannel cloth, premium,	1 00
Charles Blair, Franklin, fulled cloth, premium,	2 00
G. Ten Brook, Madison, tow cloth, premium,	1 00
J. W. Helms, Adrian, basket superfine crackers, premium,	1 00
Miss Harriet Allen, Medina, bed quilt,	1 00
Mrs. J. W. Helms, Adrian, shell work quilt, premium,	1 00
Benjamin Marlatt, Adrian, bed quilt,	1 00

Mrs. Stephen Allen, Madison, two woolen shawls, pre.,	$1 00
do do " four pair hose, premium,	1 00
E. Smith, Clinton, 12 sides upper leather, 6 calf, 2 kip, do., premium,	2 00
Mrs. J. Ten Brook, Fairfield, bed quilt,	1 00
A. J. Comstock, Adrian, 1 barrel flour, 1st premium,	2 00
D. C. Jackson, Woodstock, " " 2d premium,	1 00

PLOWING.

C. Barrett, Raisin, 1st premium,	4 00
Asa Crane, Madison, 2d premium,	3 00
S. Orcutt, Hudson, 3d premium,	2 00
Wm. Crane, Madison, dis., premium,	1 50
J. K. Johnson, Madison, dis., premium,	1 00

BROOMS.

Joseph Hoag, best dozen corn brooms, premium,	1 00
S. W. Fenton, dis. premium on do	
E. Brownell, " " do	

Address of Dr. M. A. Patterson, at the Lenawee County Agricultural Fair, October 4, 1850.

The principal object of our society is to encourage improvement in agriculture and horticulture. Agriculture refers to the growth of those great vegetable and animal products which constitute our principal food, and from some of which our apparel is manufactured.

Horticulture includes the cultivation of trees, shrubbery, flowers, and all of those delicious vegetables belonging to the orchard and garden.

Agriculture is of far greater extent than any other human pursuit, and may be compared to a vast superstructure whose base is the habitable earth. As the ornaments upon a Corintian Temple impart grace and beauty to the building, so horticulture weaves its delicate vines and flowers and blooming fruit over the agricultural edifice, softening and adorning the rugged features of the structure. As agriculture "clothes all and feeds all," it stands at the head of the useful arts, and, as compared with horticulture, is entitled to priority of consideration. But agriculture is not merely an art depending simply upon a routine of manual labor—it is a science also—abounding in principles derived from careful investigations of the phenomena of nature, and, as such, has a power of expansion apparently without limit, for who can bound improvements in agriculture, when guided by science, and impelled by industry?

Success in agricultural pursuits depends mainly upon a knowledge of the best modes of applying labor to the cultivation of the soil. This knowledge—whether derived from the experience of ages, from vegetable and animal physiology, or from chemical analysis, forms the science of agriculture. Labor and science combined, constitute modern agriculture. Labor may be termed its muscular power—science its mind. Without the application of scientific principles to agriculture, the whole business of farming will remain what it has been from the earliest history of the world to the dawn of the present century—a system of guess-work—and very bad guessing at

times too—if we may judge by the frequent shortness of the crops at harvest, compared with the hopes and expectations of the husbandman at seed time. These often-occurring disappointments prove, that unless the farmer possesses a knowledge of the soil he cultivates, and the best and cheapest modes of recruiting his partially exhausted lands; unless he knows what species or variety of grain or grass is best adapted to the respective parcels of soil on his farm—unless he pays attention to the seasons, and their influence not only upon his crops, but in the production of insects, like the Hessian fly, which destroy his grain—unless, in fact, he is a close observer of every thing that has an influence upon his business—he may exert his muscular power until his sinews crack, and he is ready to faint with toil—he may plow, and he may sow, but he will never receive a full reward for his labor. Labor—unaided, toiling labor can accomplish much—but labor and knowledge combined, can accomplish every thing within the scope of human possibility.

When our Creator declared that man should earn his bread by the sweat of his brow, he gave him the world for an heritage and the earth, full of thorns and thistles, to till. But no barrier was erected against the exercise of man's mental powers. His mind was left free to explore the hidden springs of nature, to investigate the cause of all things and to bring to his relief such discoveries as would soften his toil, and aid him in subduing and cultivating the earth.

Notwithstanding these great privileges, agricultural labor has been but little relieved by the wonderful improvements of the nineteenth century, which have benefitted every other human pursuit. Why is this? Have not a few almost inspired minds discovered the principles of vegetation, the structure and composition of soils, and the plan of nature in elaborating from the surrounding elements, air, soil and water, the food of plants? Have not the votaries of science come to the very threshold of the agriculturist and offered their rich treasures of knowledge as a substitute in part for the benighted system which prevails, with but few exceptions, throughout the length and breadth of the land? And how have they been received? In nine cases out of ten, rejected with contempt, as "book farmers." Book farmers indeed! Is agriculture confined within a magic circle, that light, and knowledge, and truth, cannot be permitted to enter

its charmed precincts? Must its portals remain forever closed against human progress, and will the farmer of the present day be content to toil on by the uncertain and flickering light that guided the agriculture of the fifth century? If so, as certain as he rises in the morning, there is toil without pleasure before him through the day—and toil without the certainty of an adequate reward in prospect, until his labors here have ended forever.

It is this constant drudgery from sunrise until sunset, unrelieved by an effort to lighten the toil, or improve our system of husbandry, that has kept agriculture and its followers in a false position, as regards their influence on society at large. "But alas! the practical man too often scorns the light of science. He ridicules the idea of having his sons study the properties and source of the constituent elements, which God has appointed to make the bread, the meat, and the clothing of all rational being. We rejoice however in the strong faith that the deep prejudice against the study of the natural sciences which have so intimate a connection with rural industry cannot last always"—that the time is coming when the present ideas of society will be reversed;—when Law, Divinity, and Medicine, will no longer be regarded as the aim and end of our young men's ambition—when it will be discovered that these popular and "learned professions," demand no superior abilities, compared with the mind and intelligence required to form a successful cultivator of the soil. In the mean time, let us "wait and hope," while we look around and inquire what has been done for agriculture at home.

That an immense amount of labor has been expended upon the soil of Lenawee and the adjacent counties, is evident in the vast improvements which every where have supplanted the wilderness. Twenty-three years since, your speaker landed at Detroit, with the design of making Michigan his home, if he found its soil and cilmate adapted to sustaining a dense population. At that time, Detroit resembled any thing but "the City"—it was, as Cooper would have described it, "a shapeless mass of bad proportions"—Ann Arbor, Ypsilanti, Adrian and Tecumseh, distinguished on Farmer's map as villages, were merely localities, where villages were to be. With the exception of the old French settlements, on the waters of the Detroit, the St. Clair, and the River Raisin, and a few widely scattered dwel-

ings in Oakland, Washtenaw, and Lenawee counties, we searched this broad Peninsula over, almost in vain, for the habitation of a white man. From where we now stand to Chicago, the soil had never been touched by the cultivator, except where the French trader had erected his wigwam, or the Indian had raised his corn. But a country more inviting to the agriculturist, even at the period of which we are speaking, has seldom been presented to the eye of man. In making this remark, we indulge in no poetic license, but simply express the convictions which arose involuntarily, on first beholding the singularly picturesque and beautiful appearance of Michigan, before the hand of civilization had marked it for its own. We allude more particularly to the districts bordering on the Huron, the Grand river and Raisin, and extending from the head waters of these streams to the St. Joseph. Other portions of Micigan have been found equally worthy of attention, but these came under our more immediate observation at the time. Did the emigrant require timbered land, abounding in walnut, white wood, cherry and oak, with a soil enriched by the decomposed foliage of a thousand years? It was here, olready deeply manured by the hand of nature, waiting but the magic touch of improvement to teem with the golden grains of agriculture, Did he seeek partially cleared land? The "openings," covered with tall herbage, and dotted over with timber resembling at a distance the old apple orchard of the East, invited him to repose under the shade of a spreading oak and refresh his horse with the grass at its foot. But, if still unsatisfied, a little farther on, he found the prairies of the west, with a soil of untold richness, blooming with beauty, and fragant as the gardens in the midst of the wilderness; while flowing streams, and thousands of small lakes spreading over the country in every direction, afforded evidence that nature had collected here, not only a choice variety of soil, but also abundance of water, to aid in developing its fertilizing powers. It is unnecessary to dwell upon the original fertility of the soil, the ease with which it was subdued, or the admirable arrangement that every where existed, in the changes from partially cleared lands, to timber, and from timber to prairie. These, in connection with extensive deposites of marl, the abundance of water, and the favorable character of the climate, removed alike from the burning heats of the torrid zone, and

cheerless regions of the north, established the perfect adaption of Michigan to agricultural pursuits.

We became the owners, the guardians of the treasures deposited here. We took this new soil from the hands of nature, not a foot of which was deficient in fertility, and we have stamped the impress of our works upon it. What works? Works of necessity at first. The clearing or breaking up of the first patch of ground, the erection of the round timber into a comfortable log cabin, with clay plaster to secure its inmates from the wintry blasts, together with the towering stick chimney, affording appearance of real comfort from without, not belied by the spacious fire-place, the solid plank floors, the white-washed walls and cheerful faces within. Then came the choppings, the logging bees, and burnings of the timbered lands, the dragging in of seed for the first crop of wheat, and the breaking up of the openings with a massive plow, drawn by five or six yokes of cattle, moving on with a power that Hercules would have envied, and overcoming every obstacle to its progress. These were matters of daily occurrence, and are new only to a tyro in the art of subduing a new country; still, we can scarcely conceive of anything more admirable in human enterprise, than the first efforts of the Pioneer to create for himself a home in the west. See him collecting the scanty savings of years, and preparing for a journey of hundreds of miles, while he encourages his young wife with the hope that a more certain reward will attend his labor in the west. "Where land is cheap and men are scarce, and where poverty is no disgrace, we can struggle on without humiliation, until we have a home of our own," is his emphatic language. Soon after landing upon our shores, he becomes the owner of a lot or two of land. His title is indisputable—it is guarantied by the United States. He takes possession, and finds, perhaps, a mighty growth of timber covering its entire surface—no human habitation in sight—all is still and solitary around him—he is deeply impressed with the greatness of his undertaking—with the vast amount of labor spread out before him, and with the feeling that on his own unaided efforts depend the realization of his hopes. Now watch him while he selects a spot for his rude habitation, the Pioneer's first home. He looks above, and around, wherever his eye is turned or his footsteps directed, the lofty giants of the forest frown upon him.

What a pigmy he appears in stature and in strength, compared with one of these. Does he hesitate? does he waver and cast back longing eyes toward his old home in the east? No! the same independent spirit that brought him here, sustains him now. He stops at the foot of a massive oak, his hat and coat are flung upon the ground, he unslings his axe, now it whistles in the air, and down it comes upon the oak with a right good will, making the forest re-echo with the sound. Only a small impression is made upon the giant oak, but a great moral thing has been accomplished by the man. *He has struck the first blow for independence and a home.* He feels that he is equal to the task before him; he breathes more freely, and his blood courses more actively through his veins, as blow upon blow follows in rapid succession, until the lofty monarch of the forest trembles and totters, and bows his head lower and lower, and comes with a crash to the ground. Another, and another soon falls before the axe of the Pioneer, until his clearing is made and his log cabin erected. He may well be proud of his achievement. He has triumphed over nature herself. But hi efforts do not rest here. His axe is again heard ringing merrily in the frosty air—early and late he is at work. Clearing is added to clearing, field to field, until, as the crowning reward of his labor, he has a handsome farm and something to spare, from the immediate wants of his family. Then appears the brick or white painted cottage, surrounded by shrubbery, and enclosed by a neat fence in front. The sound of the axe is heard no longer, for the forest has disappeared under the sturdy blows of the Pioneer, now the substantial farmer, who shows his good sense and intelligence by attending our agricultural fairs, and competing, perhaps, for the premiums. We have but to look around in order to see the originals of this portrait. May we not ask them whether they have ever regretted the first blow they struck in the solitude of the wilderness, for an independent home in Michigan. No! is the universal response.

We pass by these first efforts at agriculture with regret, having often in our younger days attended the "raisings," and watched the progress of many a jovial "logging bee," when neighbors cheerfully aided each other in performing what one alone could not accomplish in season. Memory still lingers around these scenes with interest, for at those "raisings," around those "logging-bees," and amid the

rude habitations of our early emigrants, were hearts replete with feelings of benevolence and friendship. Although the Pioneer may have presented a rude exterior, within dwelt a soul alive to every manly feeling, which quailed not before the poverty that surrounded him, and the arduous toil he had to encounter. Woman, too—the wives and daughters of our Pioneers—must be remembered in this scene; for they also sacrificed the homes of their childhood, with the comforts of the east, and sustained a tedious pilgrimage to our shores, with a fortitude which none can appreciate in these days of steam and railroads, who are ignorant of the difficulties and vexations they had to encounter. And when the mysterious agents of disease cast gloom over their settlements, when the scourging rod of pestilence hung over their devoted dwellings, and threatened to destroy their dawning prospects of comfort and happiness, we have seen them, like ministering angels, nursing the sick, comforting the afflicted and cheering the drooping spirits of the desponding invalid. Then think not, ye residents of more refined and wealthy abodes, who look with pity, perhaps, or with scorn, upon the clay plastered cottage of the Pioneer, and would spurn an acquaintance with its inmates, that the hardy emigrant, who, obedient to the promptings of an independent spirit, seeks in the west a new soil for his enterprise, a new field for his aspirations, is your inferior in any of those noble principles which constitute a man; or, that the woman of his choice, who watches over his interests with a solicitude springing from the purest affections of the heart, is not equal, aye, superior to your proudest dames, in all those virtues which elevate and adorn the female character.

> "For rank is but the guinea's stamp,
> The man's the goud for a' that."

But the poverty, the struggles, the vexations, and the embarrassments of the early settlers, have already, in a great measure, passed by. The scene has indeed changed. Scarcely a quarter of a century has elapsed, since the first furrow was ploughed in Lenawee, and now our county is dotted over with flourishing villages, and extensively cultivated farms, and farm-houses, and barns and beautiful orchards and gardens. All this is well. Here is evidence of the application of labor, and here is evidence that labor has been richly rewarded. But let it be remembered, that these improvements have

been made by drawing heavily on the wealth of the soil, originally so rich and fertile, but now rapidly passing into the second stage, or that condition when the earth refuses, notwithstanding our incessant calls upon it, to produce as bountifully as in former years. The Lime, Potash, Soda, Magnesia, Phosphorous, Chlorine, Sulphuric-acid, and the vast body of decomposed vegetable matter, originally deposited in the earth by the hand of nature, have been drawn from the soil by thousands of tons, in the shape of wheat, corn, oats, potatoes, hay, and in the wool and flesh and bones of animals. These have been exchanged for the mechanical labor and materials that have constructed your improved dwellings, and fences, and out-houses; these have built up your villages, paid your taxes, supported your schools and churches; these have purchased the groceries found in your dwellings, and these also have paid for the silk dresses, the gold breast pins, and sparkling finger rings, with which our ladies, and some gentlemen, love to decorate their persons. The soil has paid for all these things. It is wonderful that it refuses to yield as liberally now as in former years, to those who have returned to it nothing, or comparatively nothing in exchange for its rich products? The soil can no more grow plants without food, than man can live without eating. It is true that plants, like the chameleon, flourish upon a large proportion of air, but the air must be of a peculiar quality, and principally eliminated from certain organic elements placed near the roots of the plants.

With few exceptions, our system of agriculture has been similar to that pursued by the Romans at the early periods of European civilization, and by the Colonists, centuries since, on the fertile lands of America. Our implements of husbandry being superior to theirs in ingenuity of construction, we have consequently succeeded far more rapidly in extracting the riches of the soil; we have consumed at home and exported millions upon millions of bushels of precious grain, to feed the hungry population of Europe and eastern America, until we find our wheat heads growing shorter and shorter, the kernels of the ear decreasing nearly one half in number, the grain deteriorating in quality, and the great staple of Michigan, the pride and boast of our Peninsula, becoming an uncertain and precarious crop. Why is this? Has the climate changed? Has Providence with-

drawn his blessing from agriculture in Michigan? No! the climate remains the same, the blessing continues now as ever. But in commercial language, the balance of exchange has been constantly and heavily against the land, and in any other pursuit, a similar system of operations by exhausting his capital would long since have ruined the operator.

With improved circumstances, our enterprising farmers are now becoming sensible that a better system of agriculture must be adopted in order to uphold our credit, as one of the very best agricultural states in the Union. And among the plans devised for accomplishing this object, the agricultural societies now in operation, and being projected in the older counties of the state, are the most effective. It is unnecessary to enlarge upon the importance of these societies when well conducted, or upon the value of their auxiliaries, the agricultural Journals of the day. The advantages of these to the farmer are so self-evident and unmistakeable, that if there is one among us who will not give heed to these living witnesses of the great truth, that there is still much to be learned in agriculture, neither would he believe one, though risen from the dead. The man who perceives his soil, upon which he depends for a living for himself and family, gradually, but certainly, failing to afford a fair return for his labor, who discovers his resources cut off and vanishing from beneath his very feet, who looks around with hopeless despondency as the harvest approaches and he finds his crop far below the average of some of his neighbor's; may continue to refuse his sanction and aid to his county agricultural society, he may still refuse to take and read an agricultural Journal, lest perchance he obtain a new idea, he may continue to curse his bad luck, but as certainly as he persists in his obstinacy, and pursues the same wilful and unwise course, his bad luck will follow him continually, and his troubles, like the evil spirits of the Eastern tale of the Magi, will thicken around him. To all such we would say, "it is a great blessing to know our own ignorance. True wisdom consists in knowing and owning it. It is no reproach to us, as followers of a pursuit, old as the origin of man, but comparatively new as a science abounding with ever new and varying phenomena, that the causes of many of these lie still hidden from us; when Newton himself declared that he had been only as a child who gathers

shells on the sea shore, while all the treasures of the vast expanse of ocean, lay unexplored before him."

And like Newton, how little do we know, compared with what we have to learn. Yet such is the force of habit, that when the human mind once gets, as it were, into a rut, a generation, at least, will pass away before it learns to escape from it. Worse than no guide at all is a bad guide. For on the ancient customs that have prevailed in agriculture, which, like the fabled legends of the Druids, have been transmitted from father to son, from Rome to England, and from England to the United States, a system of bad examples, the basis of a routine practice called "farming,"—unalterable as the laws of the Medes and Persians with many, has been cherished as all that was excellent in practice, but found by others vacillating, uncertain, and often pilotless—with an inevitable tendency to exhaust the soil, and to leave it after a few years in the condition of the worn-out lands of Virginia—a barren waste. It is this cherished system that has produced the present hopeless sterility of various parts of Northern Africa and Asia Minor, as well as Sicily.

"In the campania of Rome, once the garden of the world, where, in the time of Pliny, the earth literally teemed with the rich products of agriculture, the traveler is now astonished and depressed at the silence and desolation that surround him. Even from Rome to Truscati, twelve miles of road most frequented is found only an arid plain, without trees, without meadows, natural or artificial, and without villages or other habitations of man." Similar causes produce similar effects the world over. The same system of husbandry continued here, must inevitably produce the same results. Our forefathers expended much of their treasure and blood in establishing the great principle of human equality and the rights of man. We have cherished the principle as a sacred legacy, and if necessary, would fight for it, and expend our treasures to sustain and uphold it. This principle is so well understood that it would seem improper even to allude to it on this occasion, were it not for the purpose of illustrating the fact that some people have a fondness for repeating what others understand as well as themselves. Hence we have lectures on the rights of man, from the press and the pulpit, from our legislative halls, and from the bench, as though there were

no rights in the world except those of man. If some of these lecturers would expend a little of their eloquence in illustrating "the rights of the soil"—if the press would insist upon those rights—the pulpit apply the text, "as you sow you shall reap," practically, as well as morally, to the subject—if our legislators would enact laws for cherishing those rights, and the bench expound, as a common law principle, that it is easier "to rob the soil than a hen roost," but no less discreditable, nor less certain to be followed by punishment, the rights of the soil would soon be as well understood and appreciated, as are the rights of man.

Thanks to the labors of Sir Humphrey Davy, Liebig, Bouissingault, Johnson, and our own countrymen, Emmons, Dana, Lee and others, the beautiful and harmonious operations of nature in the vegetable kingdom are being unfolded to our view, and a more enlightened system, based upon facts drawn from the study of organic chemistry and vegetable physiology, is gradually dignifying our husbandry, and rooting up many old and absurd notions, apparently derived from the "man in the moon," who, from the days of the Pharaohs, through successive generations, down to the present period, has had the crops under his especial charge, if we believe those who still think Columella, an old writer on agriculture, that this dull luminary is the presiding Deity of crops. A verse of one of Columella's latin, lyrics rudely translated, reads as follows:

> "If you plant in the old of the moon, look out for storms;
> If you sow in the old of the moon, look out for worms;
> If you sow in the new of the moon, you'll have no fly—
> If you plant in the old of the moon, the plants will die."

Speaking of the "fly," reminds us of our own experience on this subject. The first year we commenced farming in Lenawee, a swarm of Hessian flies deposited millions of their eggs upon our wheat, from which an infinite number of these destructive insects sprung to life, and nearly destroyed our entire crop. What was left in the fall, they finished in the spring—no variety escaped—blue joint, white flint, Hutchinson, bald, and bearded, all shared the same fate—and our neighbors fared no better. Unused to submit to such wholesale depredations, and having been early taught that for most evils there is a remedy, we determined to investigate the matter. After carefully examining the insect in its different stages with a mi-

croscope, and attentively studying its habits and instincts, we devised a plan for our future guidance, which, during several years of trial, has not failed to remedy the evil. No one will deny that if you withhold food and shelter from an animated being, it must perish. On this plain proposition we formed our plan of action. We determined to cut off the supplies, or in other words, to furnish no food or lodging for the insect at the time it required both. As the season for seeding approached, we carefully inspected the accidental stalks of wheat which had sprung from the scattering grain on the stubble field, or from the droppings of the threshing machine. If these stalks, immediately above the first joint were found studded with the eggs or larvæ of the fly, it was evidence of an abundant fly-season, and that if the seed was sown before the 25th of September, the crop would be seriously damaged, if not entirely destroyed. Why? Because, from careful observations of the weather during many years at Tecumseh, we found that frost usually occurred near the commencement of the last week in September, and returned at brief intervals until spring. Now these insects, when in the fly-state, are quite tender—a sharp frost will certainly destroy all of those that are on the wing, and before a new swarm can spring forth, ready again to do mischief, a repetition of frost deprives them of the power.

Here is a table for twenty years of frosts of sufficient severity to destroy vegetation. It can be relied on as correct, having been copied from the meteorological notes of Thomas Wright, Esq., of Tecumseh:

1831.	September	30.	1841.	September	30.
1232.	"	25.	1842.	"	20.
1833.	"	13.	1843.	"	28.
1834.	"	28.	1844.	"	22.
1835.	"	15.	1845.	"	22.
1836.	October	3.	1846.	"	22.
1837.	September	22.	1847.	"	14.
1838.	"	3.	1848.	"	22.
1839.	"	28.	1849.	"	24.
1840.	"	20.	1850.	"	29.

If the seeding is not deferred later than the 25th of September, and the whole of the seed is covered during the last week of this month, the subsequent weather, in our climate, has proved sufficiently warm to allow the plants to obtain a good growth, with roots

firmly bedded in the soil, sufficient to withstand the severities of winter, and in the spring they push forward with such rapidity, that before the "spring fly" attains sufficient maturity to injure the wheat, it is beyond their reach. Several years since, we published this mode of preventing the ravages of the "fly," and as far as we have learned, those who have tested it practically, are satisfied with the result. After adopting this method, aided by a thorough system of tillage, we were so uniformly successful in raising good crops of wheat, that many of our neighboring farmers were anxious to obtain some of the seed. We said to them—"Gentlemen, good clean seed is of course necessary, but without you pay attention to the habits of the fly, and sow at the proper time during a fly season, the peculiarities of the seed will not insure you a crop."

It is true that the Mediterranean variety is said to withstand the attacks of the fly better than most other kinds of wheat. But who wants to see the beautiful varieties of thin husk, bald white wheat, for which Michigan formerly was so famous, supplanted by the bearded, dark, coarse husk Mediterranean, the general introduction of which must inevitably lower the standard of Michigan wheat? It should be our pride not to abandon our favorite varieties, but to endeavor to extirpate the "fly," by pursuing a wise and thorough course of tillage. But in the opinion of some of our agricultural friends, you must sow early, "fly or no fly." Truly, with them there is no way like the "good old way," although years of experience, and a succession of disappointments, have proved the folly of some of those "good old ways." We may look to Heaven for a blessing upon our crops, but before we can hope to obtnin the blessing, we must deserve it by exercising those noble faculties which God has given us to aid ourselves. "Knock and it shall be opened unto you," applies as emphatically to the agriculturist as to the christian—the book of Nature, as well as the book of Holy Writ, to be profitable, must be read and studied with an enlightened and understanding heart. "Seek, and ye shall find," is the language of scripture and of common sense. Within the past quarter of a century more light has dawned upon agriculture than during the preceding ages of the world. From an obscure and humble art, with mere laboring machines to guide it, it is now associated with the noblest of the sci-

ences, with the ablest minds in the world, to illustrate and uphold it. The opening of the nineteenth century found it clothed in ignorance, stupidity and folly. The close of the same century, if the agriculturists are true to their own interests, will leave it in the centre of the scientific circle, with the sister sciences yielding it homage and illustrating and sustaining it, while its followers will be recognised among the master spirits of the land. Knowledge has indeed dawned upon agriculture, and he who would succeed in the race for pre-eminence in this great department of human industry, must attentively study the principles on which it is founded.

But what has modern science done for agriculture? Has it, in the cynical language of Dean Swift, "accomplished more than the whole race of lawyers and politicians, by causing two blades of grass to grow, where but one grew before?" It has done something more than this. In Europe, and in the older states of the Union, it has reclaimed thousands of acres from absolute barrenness, and rendered them capable of bearing immense burdens of grain and grass. It has revealed the structure of plants, explained the functions of the root, the stem, the leaves, the bark, the course of the sap, and informed us by what process the food of plants is converted into those substances of which they consist. It has made known the nature and chemical constitution of the substances which are most largely formed from the food in the interior of the plant. It has explained in a rational manner the influence upon vegetation of light and darkness, of heat and cold, of electricity, of rain and storms. It has investigated the natural history of the insect tribes, and shown us how to avoid their depredations upon our crops. It has invented simple modes of analysis, by which we can determine with certainty the precise constituents of the soil we cultivate, and learn with unerring precision what material is required when the over-taxed earth refuses to produce a favorite product. It has carefully and laboriously analyzed corn, wheat, oats, clover, straw, and every other farm vegetable, from which we learn the quantity of organic and inorganic matter drawn from the soil and atmosphere by each of these. It has prepared tables from which, at a glance, we discover the fitness of one variety of plants to be ploughed in as food for another. It has taught us the component parts of different manures, and shown us how to prepare

and preserve them, by adding certain cheap substances to the heap, which prevent the escape and total loss of the volatile principles, as ammonia, &c., the most important and enriching of the whole mass. In a word, it teaches us the true nature, condition and value of our soil. Let no one suppose that there is an aristocratic spirit in agricultural science—that its revelations can be comprehended only by a favored few—that its votaries are puffed up with a pride of knowledge, or with a desire to astonish the plain farmer with high-sounding terms, or brilliant theories. Far from it—no man is more modest than the honest votary of science—no man performs humbler duties.

He who takes from the rotting and offensive dung-heap, a pound of manure, who washes, filters and rubs it asunder with his hands, and for days together, has it beneath his very nose, while offensive gases are evolved that would make a farmer hold his nassal organ with his thumb and finger, and all this for the purpose of shedding light upon agriculture, performs as humble a task, as far as the manual labor is concerned, as he who shovels the manure into the cart and spreads it on the field.

Go into the agricultural chemist's work-shop, and you will find him with his coat off, his shirt sleeves rolled up, his leather apron on blowing the bellows, roasting and boiling, and laboring with his tools, as busily as any farmer during harvest. His whole soul is absorbed in the investigation of important truths, a knowledge of which is of practical value to no one but the farmer. Surely, there is no aristocracy of knowledge here—it is intelligence alone that distinguishes the laboring man in the Laboratory, from the laboring man in the field.

Doubtless many of you are anxious to educate your children thoroughly; to give them an opportunity of acquiring a knowelge, not only of the English branches, but of Latin and Greek, should they be designed for what are rather pompously called the *higher professions.*

It is difficult, perhaps, to educate our children too much, but we deny that there is any higher profession, or nobler pursuit than agriculture properly understoed; and if there is any one here disposed to dispute this, we will find a "Wolverine" who will take the stump with him, commencing from the period when

"Adam delved and Eve span,"

and argue the question down to the time when our worthy President declared from his stand, that he had a gold mine on his farm more precious than any that would be found in California.

It is indeed right and proper to educate our children, and as a part of that education, we should insist upon their being instructed in the principles of agricultural chemistry, so that during the vacations of the schools they can employ their time usefully at home, analyzing soils from every field on the farm, testing different samples at different depths from the same field; giving us, in fact, a correct description of the soil we cultivate, and a table of the ingredients of which it is composed. A chart of this description would be to us what the compass is to the mariner. We should no longer grope in the dark, but would be able to determine with certainty the causes of our frequent failures, and the appropriate remedies; we should learn when medium plowing or sub-soiling is best—when lime, marl, charcoal, ashes, muck, bonedust, (phosphate of lime,) either one, or all of these are required to restore some important element of vegetation to our partially improverished soil. Certainly this, and similar information would be of immense value to us all. *

Gentlemen, you have a State University richly endowed by the sale of public lands which your laborers, in part, have rendered valuable. In this University is taught whatever is considered necessary to qualify a young man for the *higher walks of life.* There we find an exceedingly valuable library, a splendid mineralogical cabinet, and rare and curious specimens of natural history, for teaching and illustrating scientific knowledge, and classical lore. There you have twelve different professorships in the hands of several Professors, presenting an imposing array of literary ability, admirably calculated to dazzle the spectator, if not to enlighten his understanding. Now let a farmer enter this temple of science and enquire "what has all this to do with my business?" and echo from the walls will respond to his inquiry—nothing—emphatically nothing. Agriculture, for which this lovely Peninsula was designed by Providence—agriculture, that gives life and impulse, and energy to every other occupa-

* As a text book on Agriculture, admirably adapted to our common schools, we refer with pleasure to the compendium of Professor N. S. Davis, of Chicago, Ill. Few books contain as much scientific and practical information within the same compass.

tion—agriculture, without whose efforts both students and professors would perish with hunger—agriculture, whose followers compose nineteen-twentieths of our population—agriculture alone, the most useful of all arts, the most important of all sciences, is not represented here! Why? Is it not worthy of a seat in this temple of honor? A science that has commanded the devoted attention of such men as Sir H. Davy, Liebig, Johnson, Emmons, Lee, and others equally worthy of our admiration and respect, would not dishonor by contact or association, even the learned Professors of the University of Michigan.

Gentlemen, you and your fellow agriculturists throughout the State have the power and influence to remedy this defect in our University. You have only to say that a Professorship of Agriculture shall be established, not as contingent or collateral to some other department, but solely and exclusively devoted to instruction in scientific agriculture, and it will be done. Then, and not until then, will the interests, the honor, and the dignity of the cultivators of the soil be faithfully and fairly represented in Michigan.

In the absence of any such stimulant to progress, it speaks well for the enterprise and intelligence of our farmers, that they are endeavoring by association, to promote the advance of agriculture at home. Among the modes devised by the society for improvement, none will have more influence than a wisely arranged system of premiums. The direct object of premiums is to encourage agricultural improvement, but to avoid being amenable to the sneering remark, somewhat current at the east, "that no poor man ever obtains a premium at an agricultural fair," our system must be based upon the actual condition of things around us, and to the peculiarities of our location and circumstances.

It is clear, that a system of premiums, which would operate well in some of the old counties of New England, New York and Pennsylvania, would have a very different effect in the counties of our Western States. In the former, the lands have been cultivated upwards of a century, during which the soil has been literally drained of its fertilizing elements, and artificial stimulants must be constantly and largely applied to secure even a medium crop. Hence, when a premium is awarded for the best acre of wheat or of corn, the quan-

tity of foreign nutrition, as Peruvian guano, &c., supplied to the soil, and the whole expense of cultivation is necessarily greater than we could afford, even to secure a premium; much less to adopt as our general system of farming. In the old counties of the Eastern States, the landholders generally are wealthy; among them are "gentlemen farmers." Now when we speak of "gentlemen farmers," we do not mean "scientific farmers," the former deal in fanciful theories, the latter in facts; the former indulge in extravagant expenditures to produce certain results, the latter economize the bread and meat growing elements in the closest manner. By "gentlemen farmers," then, we mean those who for the gratification of being heralded as the successful competitors for a premium, disregard expense: honor and fame, not profit, being their immediate object, and this is not strange, as we have known men to become distinguished, even in this country, for much less important objects than for growing the best acre of wheat, or rearing the best pig. We of Michigan are differently situated. We have no "gentlemen farmers," none who can afford to have the soil cultivated simply to gratify an ambitious feeling, regardless of the expense. Unlike the eastern farmers, our surplus products find a market far distant from the field of our labors, and our premiums to be beneficial, must be strictly adapted to our circumstances. At present the important staples of Michigan are wheat, pork, and wool, and as these are almost the only articles that will bear transportation, at saving prices to the great marts of the Atlantic, it is for us to inquire how we can produce them of superior quality, in the most economical manner. The same principle will apply to most other things for which we award premiums, although in a less degree, being less important. When a thing is exhibited here as a superior production, it would be interesting to know the cost of producing it.

When an acre of wheat or corn is reported to the society as a remarkable crop, our first inquiry should be, what was the expense of raising it? If a fine and fat animal is exhibited. the cost of making it so fine and fat would be an important item of information. In the report of a grain crop, it would be interesting and profitable, aside from the cost, to know the quality of the soil on which it was grown and the mode of cultivation, with all the attending circumstances, so

that we may judge whether it will be wise and profitable to imitate the example, and strive after similar excellence. So also as regards a specimen of a remarkably fine animal—the mere looking at the thing may gratify the curiosity but communicates little information of practical value. We should know the whole history of the animal, its origin, the method of rearing, of feeding, and the care required to produce such superiority.

A brief statement embodying all of these facts, accompanying each application for a premium, would afford a fund of useful information, and in all cases the descriptions of the successful competitors should be read before the society.

Several years since, a queer old friend of ours reared a mammoth hog in Pennsylvania, that was the wonder of the whole country—he weighed some 1500 pounds, and swept off the premiums far and near. Unfortunately, we do not know how the animal was managed to attain such great size; but it was said that the old gentleman sat up nights in order to encourage his porker to take an extra quantity of corn mush, and that he would tickle his ear by the hour with a straw, to keep him from sleeping too hard, which he thought was bad for his health. Things reared in this way may obtain premiums, but the process will not materially advance the interests of agriculture. We are well assured, that if the production of the best article exhibited or reported here, does not develop an important fact of general practical utility, it will not advance us one step in the true object of our organization. From this rule, however, we must except fancy articles, as we all know that the Ladies never hope to obtain a fair compensation for the endless number of stitches in a bed-quilt, or for the wear and tear of patience in getting up a rag carpet. There is comfort and gratification in the possession and use of such specimens of their handiwork, and these are their principal rewards.

Having devoted so much attention to the subject of agrtculture, we have time only for a few remarks on horticulture. Probably no State in the Union is better adapted to horticultural pursuits than Michigan, and no part of the State superior in this respect to Lenawee.

The soil is admirable, the seasons generally favorable, and experiments already made have been eminently successful. It is believed

by some of our orchardists, that the quality of eastern fruit improves by cultivation in Michigan; this may be so, as Michigan apples were unequalled at the fairs held at Buffalo and Rochester. Michigan peaches were also pronounced superior to any others exhibited at the horticultural exhibition at Chicago. Indeed it may well be questioned whether finer specimens of apples can be found on this continent than were raised during the present season in this county. There are gentlemen here who have had the good taste and enterprise to introduce choice varieties of fruit and vegetables; without naming them, it may be enough for us to say that we deem them Public Benefactors, and we venture to assert that not one of them has ever regretted the trifling expense and labor bestowed upon the orchard and garden. On the contrary, we believe they have experienced more real enjoyment in witnessing the perfect success of their efforts to develope these choice treasures on an untried soil, than if they had found them growing here to their hands. They are the Pioneers, the discoverers in horticulture, and as such are entitled to our gratitude and esteem; for they have established an important fact beyond cavil or question, that our soil is admirably adapted to horticultural pursuits.

The utility of horticulture is sufficiently evident, in its extensive collection of fruit trees gathered from the different quarters of the earth, and providing for our use the finest varieties of apples, peaches, pears, plums, strawberries, grapes, and all of those delicious fruits which gratify the palate, and promote a sound and healthy condition of the body. Its utility is found in the production of those admirable culinary vegetables which are grown in our kitchen gardens, as it teaches us to raise them in the greatest perfection, and from a small patch of ground to obtain nearly one-half of the food required for our families. Its utility is seen in the spreading shade trees which adorn some private dwellings, and ornament the borders of the streets and public squares of all well regulated villages, towns and cities. And its utility is felt in those delicate and affectionate attentions of the living to the dead, when they decorate their grave yards with willows and maples, and ever-greens, and plant a rose or lily over the last resting place of their beloved and lost ones. What a touching and beautiful sentiment was that of the Swiss peasant

boy, who had lost a lovely young sister, when he planted at the foot of her grave, a rose bush bearing a fresh and partially opened blossom, and carved on a rude stone above, these simple words: "Like her."

"Let us then by encouraging horticulture in all its departments, endeavor to make the village in which we live, and the little spot of earth, either in the country or the town, which we are permftted to appropriate to ourselves for a time, as attractive and beautiful as we can make it, with trees, and fruit, and shrubbery, and flowers.

And while others are wandering over the earth, in search of the fabled "El Dorado," said to have been seen in Africa, then in Brazil, and Mexico and Peru, and now in California, but which, like the golden apples of the garden of Hesperides exists only in the imagination, perhaps we can find a treasure nearer home, more real and substantial, and infinitely more conducive to our present comfort, and permanent happiness.

Macomb County Agricultural Society.

MT. CLEMENS, Dec. 2, 1850.

J. C. HOLMES. ESQ.:—I herewith transmit to you a report of the organization of the Macomb County Agricultural Society, with an abstract of its transactions for this year.

The society was organized at Romeo, February 5, 1850, and the following constitution adopted:

CONSTITUTION OF THE MACOMB COUNTY AGRICULTURAL SOCIETY.

Article 1. The name of this association shall be the Macomb Co. Agricultural Society, and its object shall be to promote the improvement of agriculture and its kindred arts, in the county of Macomb.

Art. 2. The officers of the society shall be a president, one vice president in each township, and an executive committee, consisting of the president, recording secretary, and five other members, to be chosen for that purpose. These officers shall be elected by ballot, and by a majority of the votes at the annual meeting of the Society, and shall hold their office for one year, and till others are chosen in their places: *Provided*, That the officers named upon the organization of the society, shall be deemed members and shall remain officers only until others shall be duly elected at the first annual meeting, and if a vacancy happen, it may be filled by the executive committee.

Art. 3. The duties of the president, vice presidents, recording and corresponding secretaries, shall be such as usually pertain to their respective offices; and such as may be prescribed by the special order of the executive committee, as hereinafter provided.

Art. 4. The treasurer shall receive and keep an accurate account of all moneys belonging to the society, and shall pay out the same only on the order of the executive committee; and at each annual meeting of the society he shall make a full report of its financial transactions and condition.

Art. 5. The executive committee shall determine the place of hold-

ing each annual meeting and Fair of the society, and it shall call thet meeting and Fair at such time as it shall judge best, between the first Monday in September and the third Monday in October, giving at least sixty days' public notice thereof.

Art. 6. The executive committee shall direct the money appropriations of the Society, and have the control of its property. It shall make the necessary preparations for the annual fair, and issue all proper public notices and circulars in relation thereto, or to the general objects of the Society. It shall prepare the necessary by-laws of the Society, and may prescribe such duties to the other officers of the Society as are not inconsistent with the usual business of their respective offices. It shall itself, obey the instructions which may be given to it at the annual meeting of the Society, and at the expiration of its term of service, it shall make a full report of its proceedings. It shall be competent for the Executive Committee, or a majority of them, to appoint a Chairman and Secretary, who may transact such business as they may be authorized to do by said Committee, and said Secretary shall sign, and said Chairman countersign all orders on the Treasurer for the payment of any moneys directed by said Committee, to be paid for any purpose, and said Secretary shall keep an accurate account of all moneys so drawn.

Art. 7. It shall be the duty of the Executive Committee to regulate and award premiums on such articles, productions, and improvements, as they may deem best calculated to promote the agricultural and manufacturing interest of the county, having special reference to the most economical or profitable mode of competition in raising the crop or stock, or in the fabrication of the article offered. Provided always, that before any premium shall be delivered, the person claiming the same, or to whom the same shall be awarded, shall deliver to the President of the Society, in writing or an accurate statement and description, verified in such manner as the Executive Committee shall direct, of the character of the soil and the process in preparing it, including the quantity and quality of the manure applied in raising the crop, or the kind and the quantity of food in feeding the animal, as the case may be; also the kind and cost of labor employed, and the total expense and total product of the crop, or the increase of value of the animal, with a view of showing accurately the exact resulting profit.

Art. 8. The Executive Committee shell meet annually at such place as it may itself choose, on or before the second Monday in December, and shall then immediately prepare a report and abstract of the transactions of the Society during the preceding year, embracing such valuable reports of Committees, statements of experiments, cultivation and improvements, as they may think proper, and transmit a copy of the same to the Secretary of the Michigan State Agricultural Society, as early as the fifteenth of December.

Art. 9. No officer of this Society shall receive any compensation for his services, except the Recording Secretary, and his salary shall be fixed by the Executive Committee.

Art. 10. Any person may become a member of the Macomb County Agricultural Society for one year, by paying one dollar into its Treasury, and may then continue a member by paying fifty cents per annum. Any officer of the Society may receive and forward to the Treasurer the fee requisite to membership. By paying five dollars into the treasury of the Society, any person may become a life member, and shall be entitled to a certificate of membership, signed by the President and Recording Secretary.

Art. 11. All life-members of this Society may attend the annual meeting of the Executive Committee, and fully participate in all discussions which shall arise at such meetings.

Art. 12. This Constitution shall be altered only by a vote of two-thirds of the members present at an annual meeting of the Society.

After the adoption of the constitution, the following proceedings were had by the meeting:

On motion, the chairman appointed a committee of seven to nominate officers. Said committee consisted of Neil Gray, jr.. J. H. Butterfield. G. Bancroft, N. Dickinson, D. W. Phillips, Z. Hayden and A. Baily, who made the following report, which was adopted:

For President, Payne K. Leech, of Shelby.

For Recording Secretary, W. Canfield, of Clinton.

For Treasurer, P. D. T. Evell, of Shelby.

Executive Committee—Ira Phillips, Hiram Sherman, Chas. Andrews, J. O Ferris, Hiram Taylor, together with one vice president and one corresponding secretary for each township in the county.

At a meeting of the executive committee, at Mt. Clemens, May 29th, 1850, it was

Resolved, That the society hold their first annual Fair at Utica, on the second Wednesday and Thursday in October.

And rules and regulations for the Fair were adopted, and premiums were offered to the amount of about three hundred dollars.

In accordance with the above arrangement, the society met at Utica, and held their first Fair, which was very well attended, although the weather on the second day was unfavorable. Those who were in attendance were evidently gratified at the first attempt of the society to promote the interests of the citizens of all classes, and especially the farmers. The amount paid for premiums was a little short of two hundred dollars. The citizens of Utica made a donation to the society of one hundred dollars, and prepared the ground, and fitted up in good taste the building for the exhibition of domestic manufactures, fruits and flowers. A very interesting address was delivered in the afternoon of the 10th, by Hon. R. P. Eldredge, of Mt. Clemens, immediately after which the reports of judges were read, and the society elected their officers for the ensuing year.

Payne K. Leech having declined a re-election, Azariah W. Sterling, of Washington, was chosen president, W. Canfield, of Clinton, recording secretary, Norman Perry, of Ray, treasurer. Executive committee, James B. St. John. Ira Phillips, George Macomber, Benj. T. Castle, Linus S. Gilbert, together with a vice president and corresponding secretary in each township, as the constitution requires.

W. CANFIELD,
Recording Secretary.

LIST OF PREMIUMS.

CATTLE.

Ira Philips, best bull 2 years and over,	$4 00
do do 1 do	2 00
Luther Shaw, 2d best,	1 00
Payne K. Leach, best bull calf,	2 00
Jas. B. St. John, best cow over 3 years old,	4 00
Ira Philips, 2d do do do	2 00
Wm. Stephens, best 2 year old heifer,	3 00

Willey Bancroft, best yearling heifer,	$2 00
Wm. Canfield, best heifer calf,	1 00
Lewis Drake, do pair of working cattle,	4 00
Wm. Connell, 2d do do do	3 00
Peter D'Laric, best pair 4 year old steers,	4 00
Geo. McComber, do 3 do	2 00
do best 5 pair working cattle,	10 00

HORSES.

G. W. Summers, best stallion, 4 years and over,	4 00
R. R. Smith, 2d do do	2 00
Jas. Thompson, do 3 years old,	3 00
F. Hazleton, do 2 do	2 00
T. J. Summers, do 1 do	1 00
G. W. Summers, best mare 3 do	3 05
Geo Macomber, do 1 do	1 00
Abel Warren, best sucking colt,	1 00
S. P. Chamberlin, best pair of matched horses,	4 00
Wm. Green, best single gelden or mare,	3 00
R. P. Eldredge, best breed mare,	4 00
Abel Warren, 2d do do	2 00
do best sucking colt,	1 00

COMMON SHEEP.

Ira H. Butterfield, best pen 5 ewes,	3 00
do 2d do do	3 00
Wm. Canfield, best yearling buck,	3 00

FINE WOOL SHEEP.

Jacob Scramlin, best buck over 2 years old,	4 00
Ira H. Butterfield, 2d do do	2 00
B. G Whiting, best pen 5 ewes,	4 00
Ira H. Butterfield, 2d do	2 00
do best pen of 5 lambs,	4 00
P. K. Leech, 2d do do	3 00
Geo. Chandler, best single yearling buck,	3 00
Chas. C. Leech, 2d do do	3 00

SWINE.

Wm. H. Lester, best boar,	2 00
Saml. Ladd, best breeding sow,	2 00
do do litter of pigs,	2 00

FARM IMPLEMENTS.

John H. Groff, best farm wagon,	$4 00
L. I. Wicker, do cultivator,	2 00
Chas. C. Leach, do grain drill,	4 00
A. B. Ayres, do do cradle,	2 00
C. C. Ferrer, do hay rake,	1 00
Peter H. Jersey, do six axe helves,	1 00
A. B. Ayres, do corn sheller,	1 00
do do plow for general purposes,	3 00

PLOWING MATCH.

Ormal King, first pre.	5 00
Wm. Grreen, second prem.	2 00

DOMESTIC MANUFACTURES.

C. F. Mallory, best pair woolen blankets,	3 00
Jeremiah Curtis, 2d do do	2 00
Ira S. Peasall, best 10 yards flannel,	3 00
Arad Freeman, do 10 do woolen carpet,	3 00
Norman Perry, do 10 do rag carpet,	2 00
J. C. Donaldson, do pair woolen knit stockings,	1 00
James B. St. John, 2d best do do	75
Ira S. Peasall, best cotton stockings,	1 00
Ira H. Butterfield, best pair linen stockings,	1 00
B. T. Castle, best pair woolen knit mittens,	75

VEGETABLES.

Richard Hotham, best winter squash,	50
Loran Andrus, best and largest pumpkin,	50

BUTTER, CHEESE AND HONEY.

J. C. Donaldson, best 10 lbs. butter,	1 00
A. Streeter, best 25 lbs. cheese,	2 00
Col. Norman Perry, best lot of honey,	1 00

FRUIT.

A Streeter, best and greatest variety of good table apples,	3 00
Ira Philips, 2d best do do do	1 00
Hiram Andrus, best 9 winter varieties,	2 00
Jas. B. St. John, 2d best do	1 00
Wm. H. Lester, best collection of native grapes,	1 00
John Buttolph, best 12 quinces,	1 00

FIELD CROPS.

John Williams, best acre of winter wheat,	$4 00
Henry S. Courter, best acre of corn,	4 00
John G. Stranaham, one-half acre of potatoes,	2 00

MISCELLANEOUS ARTICLES.

Mrs. J. Stephens, worsted flowers,	50
Miss Sterling, tissue, do	50
Mrs. J. Stephens, raised worsted work, 1st premium,	1 25
Mary J. Sthephens, do do 2d do	75
Chauncy G. Cady, do do 3d do	50
Miss S. Z. Standish, close stitched worsted work, 1st premium,	75
Mrs. A. S. Robertson, do do do 2d do	50
Miss Walker, do do do 3d do	25
Mrs. A. W. Sterling, domestic silk hose, 1st premium,	1 00
David H. Buell, raised lamp mats,	50
Mrs. A. S. Robertson, embroidered caps,	25
Miss V. J. Chapel, portfolio,	25
Miss Bailey, quilts, 1st premiu n,	1 25
Miss Cole, do 2d do	75
Miss S. Z. Standish, mono chromatic paintings,	75
Miss Sterling, chair tidy,	25

Mr. Wm. Canfield entered another heifer calf which would have received the premium had there been any competition.

The judges on cattle pronounce the first on which premiums were awarded, to be very superior animals which may well challenge competition with any portion of the State. They also state that much credit is due to Messrs. Ira Philips and Payne K. Leech for their efforts to improve the stock of this county.

Of working oxen there were six entries, all of good size and color, and the committee found it difficult to decide between them.

The committee on vegetables report as articles for which no premiums were provided, one sample of superior radish presented by S. S. Merril; also one head Brocoli, by Richard Hotham.

The committee on farm implements call the attention of the society to a valuable cheese press, exhibited by S. J. Wicker, but which could not receive a premium by the rules of the society; also a clover comb exhibited by E. C. Leach, which for its cheapness and utility the committee consider worthy the attention of the public.

The committee on miscellaneous articles speak favorably of a parlor stove exhibited by Benj. McGregor, and also several patterns of stoves exhibited by C. F. Malleroy.

The committee on fine arts in presenting their report, beg to acknowledge their obligations to Mrs. D. C. Walker, Mrs. A. C. Smith, Mrs. Charles Chapel, Mrs. Charles Leach, Mrs. P. K. Leach, and Mrs. J. McEntee, whose opinions in relation to the merits of the different articles submitted to this committee, were strictly followed. The attention given by the ladies to the exhibition, was all that the time allowed, and in their abilities and experience the exhibitors had the fullest assurance of an intelligent and candid decision. The committee feel that it is but justice to say, that all the articles exhibited displayed much skill and taste on the part of the makers, and were highly creditable to the ladies of Macomb county. The articles were numerous and varied, and contributed greatly to the interest of the occasion; and the committee would suggest that this department of our annual fairs should meet with still more liberal encouragement.

The following resolutions were adopted by the society:

Resolved, That the thanks of this society be and they are hereby tendered to the officers thercof, for their unyielding efforts to promote its interests.

Resolved, That the thanks of this society be and they are hereby tendered to Payne K. Keech, Ira Phillips, Ira H. Buterfield, Hiram Taylor, and others, for their efforts to improve the breed of cattle and sheep in this county.

Resolved, That the thanks of this society be and they are hereby tendered to the Hon. R. P. Eldredge, for the able and interesting address this day delivered by him before the society, and that a copy be requested for publication.

Resolved, That the president be and he is hereby authorized to award such snms for premiums as he may deem proper, to the ladies who assisted in arranging and adorning, in a manner so tasteful and elegant, the building for the exhibition of fine arts, domestic manufactures, &c.

Address of Hon. R. P. Eldredge, before the Macomb County Agricultural Society.

Friends and Fellow Citizens:

In compliance with the request of your committee, I have the honor of addressing you to-day, and upon a subject and an occasion interesting to us all.

I could have wished the duty had been assigned to one more capable of doing justice to the subject and the occasion, and who possessed more power to instruct and amuse you. It is therefore with great distrust of my own ability that I enter npon the discharge of the duty imposed.

I see around me many old and familiar faces—many who like myself at an early day in the history of our county, sought a home within her limits. To all who have been industrious and temperate, prudent and economical, she has been a kind and indulgent friend. We have seen the forest subdued, the openings cultivated, and we have all witnessed, and many of us have participated in the bountiful fruits which our rich soil, under proper cultivation, produced. Many of us are on the descent in life's journey—our time grows shorter with every setting sun. You especially, have much cause for gratification at what you have done, as pioneers and settlers of a new country, for your own and your children's benefit.

But much remains yet to be done, and you have the power and ability to do it, and the time has arrived when your interest and your duty require you to enter upon the work with fidelity and zeal. The formation of your agricultural society, and your meeting to-day in such goodly numbers, are evidences that though late, still the spirit of enquiry and progress are alive in your minds and in your hearts, and if fostered and cultivated as your interest and happiness require, as your ability and opportunities will enable you to do, the most fortunate results may be confidently anticipated.

I most sincerely wish I was better able to advise and aid you in this commendable undertaking. Let there, however, be a free and candid interchange of opinion among us. On my part it shall be so,

and in all that I may say to you on this occasion, I shall speak it in the spirit of freedom and independence, trusting it will be received by you in charity and kindness. I must talk plainly too, that we may understand each other, for I have lived too long among and with you, to hope that I can gain any particular favor or fame by "playing tricks in vanity fair."

The social, educational, intellectual and moral improvement of the farming and laboring community of our country has long been a subject of grave and important interest to our patriots and statesmen, to those who have filled as it were, the measure of their country's glory, and now sleep their last sleep in peace and honor, as well as to those who are now laboring to perpetuate the existence, and hand down to others the blessings of our free institutions. These great and good men have felt an abiding interest in the diffusion of knowledge among our laboring masses, from their deep and truthful conviction that the strength and continuance of our republican institutions depended upon the virtue and intelligence to be found among the occupants of your farms and your work-shops.

Many have feared that those who should feel the deepest interest in these matters, have been somewhat remiss in their duty. Even to as humble an individual as myself, it has long appeared that our farmers in Macomb, as in other counties in our State, were not sufficiently awake to this important subject—that they were neglecting their own great interests—that they did not enter into the improvements of the day, with that spirit and enterprise which we had a right to expect from their wealth and general intelligence. I have thought too, that our farmers as a body have not sufficiently estimated and respected themselves—that they have not truly appreciated their station and calling—the moral and political power which they should exercise in society, or the vast responsibility that rests upon them as citizens of a free country—that too many of them look upon labor as a disgrace, upon honest industry as a burthen and a curse—that they have grown neglectful of their own and their country's interests, and so little respectful of themselves as an aggregate body, that mere politicians, such as depend upon office for a support, consider them, and treat them too, as of far less consequence in a political campaign than the keepers of your taverns and your grog-shops.

These things should not be. It is not for the credit of our farmers, it is not for the best interest of our county and State, that the producers of all our wealth—the real tax-payers of the country—should be so little regarded by any class of aspirants among us. Numerically they outnumber all others. As a body, they have greater interests and more important stakes in all the great moral and educational reforms of the day. Why, then, are they not more active, more zealously engaged in the progress of knowledge and in understanding and promoting the science of their profession? I fear they have looked lightly on these things; I fear they have not well and truly examined into and understood their true interest in these matters. Here are evils and dangers that threaten our peace and happiness. How shall they be avoided—how shall they be remedied? By study, by reflection, by education, by individual exertions, by associations, societies and combinations for good and useful purposes.

In all troubles and difficulties, we must fully understand the evils under which we labor, if we would apply the remedy with any reasonable hopes of success. We must understand our interests truly, if we would promote them rightly and profitably. Is there not, then, too much reason to fear that our farmers are not as well educated in their business and profession as they should be, and as their true interests require—that while they are prudent and economical, they are still doing an unprofitable business?

The opinion has long prevailed (and how often do we hear it expressed) that if a boy is rather dull, he can work, he can make a farmer, therefore no pains are taken to improve his intellect. The parent who acts upon such a thought is criminally negligent in his duty. You cannot tell what the boy will make, until you have used the means, necessary to develop the hidden powers of his mind.

Suppose the father of Daniel Webster had acted upon this theory. Daniel was a dull boy. He had physical power to guide the plough and to swing the axe. He might have made a poor farmer. But his father judged it best to afford him the means of an education, and through the farm and the old saw-mill Daniel was fitted to play his part in the drama of life. Well has he performed his part; so well that his acts have become a part of the history of our country, and

he stands before the world with but few equals and no superiors in intellectual powers.

It is a great error to suppose that a dull intellect cannot be improved by proper cultivation. Still worse, too many of us have thought, and have acted upon the thought, that if the boy has intellect of a brighter and more promising order, it is unnecessary to spend much time or money in his education, for he inclines to the farm and we intend him to work for a living. Here we make a still greater mistake. We seem to think that three months schooling in the winter at our district school for a few years, and hard work in the summer—that study six hours a day for three months, and work from ten to twelve hours a day for nine months, (and during the nine he will forget the most he has learned in the three,) is all that is necessary to fit the boy to be a thrifty farmer, and an intelligent and useful citizen. Is such a course in the education of our children wise? Is it economy? Is it thrift? I may differ with you in opinion, but I consider such criminal neglect in the education of our children, worse than folly, more ruinous than extravagance, more destructive than idleness; and dangerous to the moral principles of the rising generation.

There are no avocations that man engages in, there is no pursuit that man follows for pleasure or profit, that opens such boundless and inexhaustible fields for the investigation of nature's mysteries for the employment of man's best talent, for the improvement of his mind and his morals, as are presented to the educated and intelligent agriculturist.

It is a progressive science, and each step that is taken, and every additional discovery that is made in it, increases the boundaries of man's knowledge, and teaches him that there is wisdom in the design, harmony and power in the operation of the great cause, all working for his happiness and prosperity. Well understood and faithfully practised, it yields a certain reward. Have you any reason to expect that reward unless you prepare yourselves to earn and merit it? If you see a mechanic ignorant, uninformed, half-learned in his trade and a botch in his business, you see a poor man, one who drags along a miserable existence, oppressed with debt and threatened with want or the poor house. If you see a doctor or a lawyer ignorant and incompetent, idle and intemperate, you shun

him as a moral pestilence, a being whom want and blear-eyed poverty have marked for their own, one whose life is one of wretchedness if not of crime. How then can you hope that the farmer will prosper, will hold that rank in our country, morally and politically, which his own true interests and the wellfare of our republican institutions demand of him, if he will not educate himself, learn well his profession, and by temperate and industrious habits, fit himself for his station?

How prone we are, all of us, to find some excuse for the neglect of a duty. Many of us try to find an excuse for neglecting our education and improvement in agricultural science, in the abundant generosity of our mother earth. It is true she is an indulgent parent, that she puts up with much neglect and abuse, that she returns good for evil. But even her patience may be exhausted. Ill treatment, neglect and ignorance of her worth and power, will in time turn her face from us, and when we hope for wheat she will give us tares, when we ask for flesh she will give us stones. But be kind, be just to her, and she then turns to us a happy and smiling countenance. Is it not our interest as well as our duty to attend to these things? Everywhere the farmer has the brightest and most cheering prospects before him. Seasons may change, empires may rise, flourish, decline and pass away. Governments may fail, and society dissolve into its original elements, yet while man exists below, the farmer's art and the farmer's care will ever be required, and will ever be rewarded. Without them we cannot live, and from them all that makes life desirable is obtained.

Fashion and wealth make large demands upon the skillful and ingenuous, and many grow rich in ministering to the artificial taste of these momentary favorites of fortune. But wealth and fashion are as changeable in their tastes and fancies as the ever varying tints of the rainbow, (though not half as beautiful,) and thousands have been ruined through these sudden and whimsical caprices. Though the fashionable and wealthy in our towns and cities may find fancied pleasure in the gratification of their artificial tastes, still they must eat and be clothed—still must they depend upon the farmer to feed their necessities, and provide them securities against the summer's scorching heat and the winter's piercing cold. The millions who are now so

busy in the affairs of life, depend upon the farmer's toil for their daily food. Where in a short time, would be your towns and your cities, your marts of commerce, and your halls of learning, now so proud in their wealth and so vain in their privileges, should the farmer turn a cold, deaf ear to their cries for bread? Where your railroads, your canals, your floating castles, that speed from clime to clime, if the farmer should fold his arms in idleness, and dream away his life on a bare subsistence?

Whose labors prompted Clinton to the grand project of uniting the waters of the Hudson with the pure fountains of our western lakes? In his far-reaching intellect he saw the vast plains and prairies, and woodlands of the west, teeming with thousands and tens of thousands of honest laborers, converting them into beauteous and productive fields, and reaping a rich reward for their privation and toil. His vast genius told him that ere many years had passed into the records of time, where then roamed the red man, proud in his freedom, and master of all, from the lakes to the Mississippi, there would be in time created countless wealth, in nature's productions, that must find a market at some point on the Atlantic; and he saw at a glance how vastly important to the interests of his native State it would be to furnish that communication. He pressed on, and success crowned his efforts. If there ever has been a patriot, a sage, a father of our glorious republic, whose memory and fame should be venerated and cherished by western farmers, that sage and father was DeWitt Clinton.

All these advantages and blessings are before us and around us; and what shall we do that we may enjoy them in full fruition, in peace and happiness? Let us study and reflect. Let us cultivate and improve our minds. Let us unite like a band of brothers for good and useful purposes, like the one that calls us together to-day.

Man, single and alone, can, as a general rule, accomplish but small things. Sometimes, it is true, many of the great discoveries and improvements of the age have been made by the inventive talent and matured judgment of the individual. The scholar in his study, the chemist and philosopher, in their laboratories, have penetrated deeply into the hidden mysteries of nature, and by their study, reflection and experiments, have opened her boundless resources to the inspection

and understanding of man. As the world has improved in wisdom and experience, so have the invaluable riches of Providence been discovered and appropriated to the comfort and happiness of his people. The great Architect, in his perfect design, provided all that was or could be necessary for man's prosperity and improvement—all that was needful to make him contented below— all that was necessary to improve and perfect him for happiness above, when "life's fitful fever was o'er."

The materials to make life pleasant and profitable have been scattered with an open hand around us, below and above us. Look upon the teeming earth—look into its hidden riches of mines and minerals—look up to the heavens, and to the bright luminary that God has placed above us, to dispense light and heat, that we may live and be happy—look everywhere, and you discover evidences of superior wisdom, economy and forethought, that could only have eminated from a Supreme and Divine Nature. But though Providence has spread these riches and blessings everywhere before, below and above us, yet they have not been given gratuitously. For all an equivalent has been demanded at our hands. "By the sweat of thy brow thou shalt eat thy bread."

This is the Divine command, and like all commands from on high is pregnant with wisdom and justice. We must earn them and pay for them by honest labor, by lives of temperance and virtue, if we would enjoy them in health and happiness. We have said that man, single and isolated, can do but little. His unaided efforts can accomplish but small things, and slowly and feebly he drags along in the improvements his condition in life requires. But associated with his fellow-men, in bonds of mental and physical brotherhood, and no task, however herculean, appears beyond their united powers.

Look back for one moment upon the history of the past, and see what striking lessons are taught us there, illustrating the truth of the above remark. Almost every page is filled with evidences of the power and might of united intellect and concentrated labor. By union of men and minds, governments have been formed from rude and imperfect materials, improved and perfected until they dispensed the blessings of peace and safety. Union made the Grecian Republics a terror to their enemies, and Rome once mistress of the world.

Union of intellect and physical power, enabled Switzerland to establish and maintain an independent republic amid the crowned heads of Europe. A union of talent and patriotic minds made the Netherlands an overmatch for the power of Spain, and enabled them to wrest their liberties from a Spanish king, though he commanded the wealth of a newly discovered world. In Holland, the union of intellect and the concentration of physical power, reclaimed from "old ocean's sway" thousands of acres, and converted their broad space, once swept by the sea in its wild fury, into a land of peace and plenty, now blooming and blossoming like a garden of flowers. A union of mighty minds, on the 12th day of June 1215, wrung from the despotic hands of treacherous and imbecile King John, the great charter of English liberties, the foundation, too, of the liberty and freedom we are enjoying to-day. Two of the great rights of the people thus secured for all time from the hands of power, are especially preserved and cherished by the American people. One, dower of woman in the lands of the husband, the other, trial by jury, justly called the palladium of English and American liberties. That charter declared that "no person should be apprehended or imprisoned or disseized (deprived of anything he may possess,) or outlawed or banished, or any way destroyed, nor will we go upon him, nor will we send upon him (pronounce sentence upon him or allow any of the judges to do so) except by the legal judgement of his peers, or by the law of the land. To none will we sell, to none will we delay, to none will we deny right or justice." A union of patriotic men tumbled the tea into Boston harbor, a feat that astonished the world and struck terror into the hearts of their British rulers.

A union of the 13 provinces soon followed, and that union continued to draw together from all parts of the land the men of temperate habits and daring minds, of wise heads and patriotic hearts, until thus united, they severed the bonds that bound them to the mother country, and fearlessly proclaimed to the world their independence and freedom. What a glorious spectacle was then exhibited. Bold, brave, pure hearted men, united for a holy purpose, and assembled to deliberate upon their own and their country's future destiny, entering upon their solemn duties with one mind, and coolly performing them at the peril of their lives and their fortunes. There was a

union of intellect, a concentration of the mighty minds of a young and a powerful nation, laying deep and sure and broad, the foundation of that country's freedom, whose glory, power and happiness could not then, and cannot now be foretold or imagined by man. No idle men were there—no drones found a congenial atmosphere amid the workings and hearings of those powerful intellects. There was work to be done, hard work, toil that "tried men's souls." No soft gloved hands could wield the weapons of that hour, and strike the blows that were to free the colonies from oppression. Then were these wanted, and were found too, the stalwart arms of the blacksmith Green, of the farmers Putnam and Washington, to strike for truth and liberty.

Thus we see, how great and glorious purposes are accomplished, through union of feeling of heart and action; and so it is in all the departments of life. Especially have we witnessed the great advantages to the farmer, the great benefits to our country, which have resulted from a union of our enterprising and talented men for the purpose of increasing and disseminating a knowledge of agricultural science. Draw ye, then, closer together—commune and take counsel as a band of brothers with each other, and you will do much to benefit yourselves, your neighbors and your country.

In our country there should be independence in honest labor. He who sows in labor should reap in peace. The laborer has the best title to his reward, and the strong arm of power should never wrest from him the harvest he has gathered. I trust and believe I am addressing an assemblage of freemen to-day, men who will appreciate truly the character, the moral worth and national importance of their brethren, the toiling masses of our country. Well and truly has the immortal Jefferson told us, that the "mass of mankind has not been born with saddles on their backs, nor a favored few booted and spurred to ride them legitimately by the grace of God." The mass of mankind were not designed to be hewers of wood or drawers of water for idleness or dissipation, or to be taxed for the support of intrigueing loaferism or selfish demagogues. But in every community, there are to be found men who dislike steady application to any industrial pursuit, who have a mortal aversion to all kinds of honest labor. They seem to float along on the surface of society,

culling the flowers and gathering the fruits that labor has produced, without ever adding one farthing to the common stock. Work they will not, yet they must eat and be clothed, and the daintiest food and the finest fabrics will hardly satisfy them. Who pays for what they consume? Who are taxed to supply their necessities? The laboring and producing masses pay their bills, and are taxed to supply their necessities. It seems strange that such drones are sent among us, to eat out our substance, and fatten upon our toil. We are at loss to understand why they are placed upon earth to encumber its fair form and be stumbling blocks in the way of industry. An honest, industrious, temperate man, we regard as one of the noblest works of God. But for the idle loafer, the miserable drone, who begs or steals, or gets from sympathy a support his industry and ability should earn, we have neither love nor compassion.

Such men are permitted upon earth for some purpose, and if we cannot rightly understand what that purpose is, we are at least permitted to make the best use of them we can; and I can see none better than to point them out to our children as examples, teaching striking lessons of the folly, ruin and disgrace of an idle and ill spent life, a life devoted to no useful purpose, followed by an old age of poverty and want.

How may the evils of the examples such men set before our youth be remedied?

By education of ourselves and our children, by study and a proper employment of the talents God has given us. By lives of industry and temperance, by a union of our hearts and minds for the intellectual and moral improvements of the day, and in associations for the extension of the boundaries of human knowledge. Such practices and examples will be a counter check upon the influence of idleness and folly.

Man is ever in the pursuit of happiness. And here there are fields and opportunities before him, wide and boundless, and as varied as his heart can desire. As a general rule he will hold fast to such truths and pursuits as his experience teaches him will give him contentment, peace and prosperity. How will he be able to discover the truths and to follow wisely the pursuits, so essential to his welfare here, and his happiness in eternity, unless he is educated, trained, and nurtured in habits of industry, temperance and virtue?

Look over the broad and fertile lands of our union, and behold the rivers, lakes, rail roads, canals, towns and cities, all teeming with masses of men, busy from the uprising to the going down of the sun. Look into your work-shops, your factories, your mountains, your mines, and see the busy intellects united with physical powers, aided by education and science, all laboring in the production of the wealth we all so much need and so much covet. And all these are the immediate and proximate results of united intellect and concentrated labor, guided and controled by the moral and political sciences of the day.

"What now is the stirring impulse of all this strife and rage of human pursuits?" What is the presiding genius over all these scenes of human industry?

I answer, it is the spirit of home. The invisible presence amid all this rough tumult, is the presence, as it were, of an angel, of cherished woman, of sweet and helpless infancy. A thought mingles with all these daily labors—unuttered, unutterable, a word is in the secret ear unspoken—unspeakable—Home—And in that thought, that word, is an energy, mightier than steam and fire, and all engines and all human sinews, for it sets them all in motion.

I have said this much to show that the visible action of life does not stand alone; that there is a spirit in man, and that this is designed to mingle with all he does. But there is another manifestation of the spirit of which I wish especially to show the importance, and that is a philosophical inquisitiveness, an intelligence that enquires into the relations and reason of things.

A man stands in his warehouse, his work shop, or his field. In each of these, is a collection of objects or a combination of powers —in each of these are processes, or the result of processes, wherein stands revealed and infinite skill. In each one of these lies hidden from the eye of ignorance matters more stupendous than the City of Petra, or the caverns of Elephanta. Things more curious than the arts of magic or legerdemain, things more beautiful than regal halls, tapestries and costumes. The microscope discovers in the pith of the elder stalk, or on the back of the spider, colors richer than the dyes of the east. The very wood that lies in the carpenters shop or in the warehouse of cabinet work might unfold in its structure, and the

principles of its growth, a whole laboratory of curious arrangements and contrivances. Let any man take the fabric he sells, trace it from the moment when the material of which it is composed spring, from the earth, through vegetable, through animal life, through process of spinning, weaving, bleaching and dyeing, until it is presented on the counter a costume fit for princes—and he would have a chapter more beautiful and more wonderful than the study of an Arabian Romance. Now, as I have said, a man stands—and I have seen him stand, in his field, in his work-shop, or his warehouse—and he knows nothing of the objects around him, beyond their obvious aspects; that one thing is good to eat, another convenient to wear, that this fabric is strong, or fine, and that viand is tender and delicate. The birds of the air know about as much which crumb or seed is nutrutive or palitable, or which stick or hair is best to build their nests with. And this is one sort of a man. And I have known a man in the same spheres of daily vocation, but with some curiosity, and some reading, not a great deal, and with habitual reflection, he had penetrated into the philosophical relation of things, and understood the problems with which he worked, the laws of proportion in architecture or cabinet work, and the principles of taste in combined colors, whether of dress or draperies; in short, one who was not only a worker, but a thinker,—and this was quite another sort of a man. And I ask, can any one of you hesitate which sort of a man he would choose to be, an ignorant farmer, workman or salesman, or an intelligent farmer, workman or salesman?

Independent of the mental satisfaction which an intelligent and thinking farmer enjoys, he has a direct and pecuniary interest in learning and understanding all these things. There is no class of workers who receive so small a compensation for actual labor bestowed, as the farmer. And why? Because he has not a perfect knowledge of his business, and does not (for the want of proper education and study) know how to apply the vast materials God has given him so as best to promote his own profit and instruct those who are dependent upon him.

Is it not passing strange that the one paramount employment of man, the one upon which all others rest, and on which mankind depend for the necessaries and comforts of life, should be, at this day, no better

understood and no better practised by a large majority of our farmers?

Farmers, this should not be! You have the power, by study and reflection, to improve yourselves and to elevate the character and reputation of your calling, of making it what it should be in the estimation of us all. Exert yourselves, then, individually and collectively; unite together in societies and associations for the purpose of collecting and disseminating true knowledge of your profession and for the advancement of agricultural science. Read and study, think and reflect, and when your judgments are formed, practice what your reading and reflection teaches you is wise and profitable. Respect yourselves, and you will command the respect of others; respect and honor your profession, for it is the parent of all others; foster and cherish it, for on its success, respectability and influence depend, not only your individual happiness, but the great interests, the liberty and prosperity of your country.

Not before farmers are willing to foster the study of agriculture, as a learned and useful profession, will they ever understand the capacity of the soil to feed and clothe the human family. It is not far from the precise truth to say that they waste as much hard labor needlessly and heedlessly every year as all the mechanics, merchants, lawyers, doctors and all others perform. I repeat again, these things should not be. May we not hope that the future will open a brighter day for us, that study and reflection will enable the farmer to reap a better reward—that the farmers will be true to themselves? But remember also, that while you are storing your minds with the necessary and useful knowledge of your profession, that you have other duties to perform, that your country has strong claims upon you, that you are "sentinels on the watchtowers of freedom." Remember that the friends of morals, of temperance and good order, have strong claims upon you. That your children's welfare, in time and in eternity, may depend on the precepts you teach them and the examples you set before them. And especially let me entreat you to be ever vigilant in teaching them by your precepts and your examples that honest labor ennobles man. Teach them to emulate Putnam and Green and Washington and Franklin, men who were never idle, fathers of our republic, who justly considered honest, intelligent labor

as worthy of their attention, as ennobling their minds, expanding their intellects, while it perfected their physical bodies.

In closing, permit me to congratulate you upon the success of your united efforts this year. You have cause to be encouraged and stimulated to increased exertion. You have witnessed what has been done in a limited time by a union of a few of the intellects of your county, in a cause you should all love and respect; and I trust that this day will be long remembered by us of old Macomb, for the quickening impulse it has given for the renewed exertions, increased study and reflection, it has induced among you in behalf of agricultural science.

Monroe County Agricultural Society.

The annual meeting of the Monroe County Agricultural Society was held at the Court House, in the city of Monroe, on the 11th of Feb., 1850, Hon. S. M. Bartlett, President, in the chair.

The following officers were then duly elected for the ensuing year:

Leander Sacket, President; A. G. Bates, Lewis Darrah, C. M. Humphrey, Vice Presidents; Henry B. Marvin, Treasurer; W. Wadsworth, Recording Secretary; E. G. Morton, Corresponding Secretary.

Also the following, as the executive committee:

Edward Rawson, Bedford; W. H. Montgomery, Dundee; A. G. Keeney, Erie; Edward Hotchkiss, Exeter; Munson Hurd, Frenchtown; George Willard, Ida; S. M. Bartlett, La Salle; R. Ingersol, London; Harmon Allen, Milan; Emmerson Choate, Monroe; John Mulholland, city, 1st ward; Jas. McBride, city, 2d ward; R. Nims, city, 3d ward; Joseph Hall, Raisinville; J. J. Bissel, Summerfield; S. R. Hathaway, Whiteford.

Resolved, Unanimously, that the President of this Society hereafter make his annual report to the Secretary of the Michigan State Agricultural Society, two weeks after the annual fair; and that the constitution of this society be and the same is so amended as to correspond with this arrangement.

For a more minute account of the finances and general condition of the Society, I would respectfully refer you to the report of the President, hereunto annexed.

W. WADSWORTH, Jr.,
Sec'y Monroe Co. Ag. Society.

REPORT.

Pursuant to previous notice, a meeting of the executive committee of the Society was beld at the Court House, in Monroe, on the 6th

of May. A premium list was made out and adopted, and viewing committees appointed for 1850.

On motion,

Resolved, That two ladies from each ward in the city of Monroe, and each town in the county, be appointed to superintend the Ladies' department at the fair, and that the sum of twenty-five dollars be placed at their disposal, to be awarded as premiums by such committees as they may appoint from their own number, for the best specimens of needle work, &c., &c., not specified in the list of premiums.

The annual fair of the society was held at Monroe, on the 2d Wednesday and Thursday of October.

Although but the second annual fair of the society, it was such as would do credit to one of much older organization. The stock exhibited, though not as numerous as might have been, was of that superior excellence, that tells of a determination on the part of the farmers of our county not to be excelled by any section of our State. The exhibition of fruits, grains and vegetables, was much more extensive than last year. Among the fruits we noticed a greater variety of superior apples, than we had supposed were grown in the State; not only were they larger of their kinds, but infinately fairer than any we have ever before seen, proof conclusive that no county in the Peninsula can compete with us in the production of fine fruits.

At the head of the list of fine apples, from the orchard of John Miller, was the Roxbury Russet, that seemed to look down upon the long array of fruits upon the tables, with rather a haughty air, as much as to say, when you are all gone, I shall be just in my prime. This would naturally produce a blush upon the cheeks of many a fair Spitzenburgh and Baldwin, presented by Mr. Montgomery, and the black apple frowned indignantly at the assumed importance of the long keeping, rusty, bachelor—looking russet, while the red and green sweeting, though naturally of a mild disposition, showed its resentment by a repeated change of countenance; and the yellow newtown pippin declared that the insult made him *feel*, if he did'nt *look* bilious, and turning its yellow eyes upon a basket of Rhode Islanders, asked them, if they were Green enough to stand all that? who, after stating the case in a *mild* though rather *tart* manner to a com-

mittee of pippins and twenty ounce apples, decided that the offence was of such a nature as required immediate punishment, and called upon Mr. Russet to step forth, that *they were large enough* to flog all the russets in the Hall, and would do it. Whereupon to prevent so disgraceful a scene, a number of lady apples, accompanied by a few sweet and luscious virgalieu pears, directed to the spot by Mr. Bacon, interposed themselves between the combatants and prevented a collission. There were many varieties of potatoes exhibited, some of them entirely new, being originated from the seed balls, and which appear to possess the property of entire exemption from the rot and other disease.

The specimens of corn and other grains exhibited, were numerous and of superior excellence. We noticed *some* pumpkins of monstrous growth, and *some* that was'nt pumpkins; in fact there were so many of the latter, that though the Hall was sixty by twenty-five feet, it was so crowded as to render locomotion within it, almost impossible. Of the domestic and fancy articles, it is impossible to speak too much in praise, and alike impossible to enumerate or to notice singly the multiplicity of beautiful specimens presented for premium and exhition. And though the second day of the fair was rainy and unpleasant, it did not prevent a very large assemblage at the Hall and show grounds, which were a little south of the city, in the beautiful grove of D. A. Noble, Esq., who, without compensation, proffered to the Society its use for the purposes of the Fair.

The society numbers about 490 members, of which one-half are old members, whose annual dues to the society, are 25 cents each. All new members pay fifty cents.

The precise number of members, it is at present impossible to determine, but the amount received for membership and admission fees on the days of the fair was $88. Amount received from the county Treasurer, $95 86. Amount received from executive committee of the several townships in the county, $153 36.

There was expended in fitting up show grounds and other necessary expenses atteding the fair, $49 15.

There was awarded as premiums to individuals as above specified, $193 68, leaving a balance in hands of treasurer of $6 39.

In consequence of a misunderstanding in relation to the resolution appended to the secretary's report, which resolution seems to take

from the secretary a part of his legitimate duty, a delay has been occasioned in the sending forward of this report, but hope it may arrive in time to answer the purpose assigned.

LEANDER SACKETT,
President.

—

REPORT OF COMMITTEE ON FARMS.

The committee appointed by the Monroe County Agricultural Society to award premiums on farms, respectfully report, that they have examined the several farms entered for premiums, and have come to the unanimous conclusion to award the first premium of ten dollars, for the best cultivated farm in the connty, to Alfred Potter, of Dundee; and for the second best cultivated farm, the second premium of five dollars, is awarded to S. M. Bartlett, of Lasalle.

In arriving at the above conclusions, your committee have taken into consideration the general order, neatness and arrangement of the entire farm and farm buildings, together with the system of culture practiced, and its tendency to future, as well as present fertility. Mr. Potter's farm consists of about five hundred acres of land, three hundred under improvement, which is cropped principally with wheat, corn, oats and hay. Rather a large proportion of it being devoted to hay and pasture. Mr. Potter is largely engaged in raising stock, which consists principally of Native, crossed with Devons, the Devons predominating.

His mode of raising wheat is generally on open summer fallow, plowed from two to three times, the first plowing being generally from eight to ten inches deep, sowing from one and a half to one and three-fourths bushels per acre, obtaining a yield of from twenty-five to thirty bushels per acre. Mr. Potter's barn and sheds are large, commodious and conveniently arranged, and in the most perfect order of any set of barns your committee have seen west of lake Erie; and your committee beg leave to say further, that his farm, altogether, exhibits a degree of well directed industry unequalled by anything that they have had the pleasure of examining.

Mr. Bartlett's farm consists of about five hundred acres, mostly under improvement. His crops consist of wheat, corn, oats and hay;

beans and carrots are raised, but not extensively. His mode of raising corn and wheat is new to your committee, but in their opinion his corn culture is decidedly preferable to any they have seen practiced, giving a much better opportunity of cultivating the land than the old way of planting in the hill, and yielding equally well if not better. But his practice of sowing wheat between the rows, your committee entertain fears, will prove to be exhausting the soil, unless his intentions are carried out of stocking or seeding down the lands with the wheat. Mr. Bartlett's cornfield exhibits a degree of culture seldom equalled, and cannot well be exceeded, but for a full account of his mode of culture, yield, etc., you are referred to the accompanying statement made by himself. It follows:

To the committee on farms of the Monroe Co. Ag. Society:

GENTLEMEN—In answer to your enquiries in regard to the cost of raising corn and wheat together, I submit the following statement, drawn from accounts carefully kept with a field of twenty-five acres so cultivated the present season. This field was half corn stubble and half clover sod plowed deep between the 1st and 17th of May. Planted the 22d and 23d of May.

DR.

To 11½ days plowing, $2,00 per day,	$23 00	
" 3 " harrowing, " "	6 00	
" 1½ " planting with drill, 10s per day,	1 87½	
" 3 bushels seed corn, 40c,	1 20	
Cost of putting in,		$32 07½

TENDING.

To 3 days with shovel plow each side of row, 10s,	3 75	
" 12 " weeding, 6s per day,	9 00	
" 3 " shovel plow as above, 10s,	3 75	
" 3½ " two horse cultivator on baulks, $2,00	7 00	
" 10 " weeding, 6s,	7 50	
" 6 " shovel plow, 10s,	7 50	
Cost of tending corn,		$38 50

PUTTING IN WHEAT.

To 4 days one horse harrow, 10s,	5 00	
" 38 bushels seed wheat, 80c,	30 40	

To 2 days sowing, 6s,	$1 50	
" 2¼ " small plow each side of row,	3 12½	
" 6 " shovel plow,	7 50	
" ½ " furrowing, 10s,	62½	
Cost of putting in wheat,		47 15
Total,		$117 72½

The cost per acre being $4,71 for raising the corn and putting in the wheat, including seed.

All of which is respectfully submitted.

S. M. BARTLETT.

Mr. Bartlett's stock consists of some full blood Devons and Durham, crossed. Also a large stock of growing horses. He has reclaimed a portion of his farm from what was considered worthless land, by a well directed system of draining; thus rendering it if not the most productive, fully equal to any part of his farm. Your committee deem that it would be unjust to close this report without noticing several other farms that have come under their notice—among which that of Milo Tracy, of Raisinville, stands first in the opinion of your committee, exhibiting a degree of neatness and order which alone can be attained by persevering industry, guided by sound judgment, good taste, and a devotion to the noblest of all pursuits, that of agriculture; and your committee, had they funds at their disposal, should deem it their duty to award him a premium. L. Darrah, of LaSalle, also has a farm under a state of cultivation, that entitles it to a place among the first. He has adopted the mode of planting corn practiced by Mr. Bartlett, sowing wheat between the rows, showing a beautiful crop of corn and a fine prospect for an abundant wheat crop. In passing about the county your committee have been much gratified with the spirit of improvement that is abroad, and it is a source of regret that there was not more farms entered for premiums. In their opinion there are many small farms in the county of from forty to sixty acres, that would have sttood a good chance for premiums, had they been entered and brought in competition with those already mentioned.

There is one practice which your committee wish to notice among many of our farmers; that is the practice of spending their entire

power for the season upon a portion of the farm, to the entire neglect of all the rest. Although by so doing they may produce a large crop, exhibiting a high state of cultivation on a single field, while the adjoining ones, and perhaps the fence corners of the same field are grown up to weeds and brambles, giving to the whole farm a slovenly and careless appearance, which a little well directed industry would remove.

All of which is respectfully submitted by your committee.

A. J. KEENEY,
EWD. HOTCHKISS,
RILEY INGERSOLL.

—

REPORT OF DISCRETIONARY COMMITTEE.

The discretionary committee having made as practical an examination of the numerous and varied articles, as the crowded state of the hall, and the shortness of the time would permit, respectfully make the following report, that in the examination thus hurriedly made, your committee would notice as valuable and important to the agricultural interests of this county,

A Vulcan cooking stove and furniture, complete.

A Hathaway improved hot air cooking stove and furniture, complete.

A parlor stove suited for the use of wood or coal, of a superior kind and quality, presented by C. Taylor.

A corn-planter, valuable as a labor-saving machine.

A wheat cultivator, also valuable in the preparation of wheat fallows.

A pruning saw and chisel, simple in its construction, of great value to orchardists.

These articles being of foreign construction, are not, in the opinion of your committee, on that account entitled to premiums.

Your committee would recommend a premium of one dollar, for a barrel of flour, Dundee mills.

We would recommend a premium of one dollar on one side of upper leather and three calf-skins, being manufactured by A. Cashmer, of Monroe.

We would further notice a lot of harness leather, and a dog skin, as superior manufactured articles, by the same person.

We would recommend a premium of one dollar on a lot of superior horse-shoes, made by H. E. Wolcott.

We would further recommend a premium of fifty cents on a piece of fulled cloth, being a good substantial article, manufactured by Mrs. James Davenport.

We further recommend a premium of fifty cents on a sack of sage, a superior article; also a premium of fifty cents on a sack of dried peaches, and a premium of fifty cents on a sack of sweet corn, prepared for culinary purposes; the three last named articles presented by P. Roberts. There were several specimens of quinces, all of a superior quality, but we give the premium to No. 134, and recommend a premium of fifty cents. [This specimen was from the beautiful gardens attached to the Young Ladies Seminary; Sec. of M. C. A. Society.] There were but two specimens of currant wine, and we give the preference to that presented by Wm. H. Manning, being of greater age, and we recommend a premium of fifty cents.

We would recommend a premium of fifty cents on a basket of superior sweet potatoes, owner unknown.

We would further recommend a premium of one dollar for daguerreotype likenesses, to Wm. Cornell.

And also one dollar to Wm. Bowlsby, for an original painting.

We would further recommend a premium of one dolar to Messrs. Inglefrits and Beardsley, for four lots of apple trees, of two and three years old, being of extraordinary growth.

We would further recommend a premium of one dollar for two pigs, male and female, of seven weeks old, to Messrs. Carlton and Gale, being very large for their age, and of a superior breed, if raised in this county.

We recommend a premium of fifty cents on a box of dark brown cigars, manufactured by Jacob Beitzell.

We further recommend a premium of one dollar, on one-half dozen hand rakes, highly finished, with iron bows, copper riveted, made by E. B. Root.

Your committee would further report that there are various other articles, of the growth and manufacture of this county, which are

in the opinion of your committee, worthy of premiums; but the exhausted state of the treasury, and the small amount placed at the disposal of your committee, forbid us to make such awards.

Of these we would note a stock of squash peppers.

A jug of tomato catsup, and several baskets and bags of onions, preference given to No 57, by P. Roberts.

A basket of seed onions and a can of onion seeds.

A can of sage seed, and a tub of cucumber pickles, all by P. Roberts.

A basket of beets and carrots, by Charles Noble, Esq.; and a mammoth beet, by Joseph Smith.

A great variety and beautiful specimens of cake, by Waldrof.

A plate of sausage, by Michael Fishburn, that only required cooking to have made them of superior excellence.

A number of large mammoth pumpkins, squashes and citrons.

A quantity of hard and soft soap, of a superior quality, by M. Fishburn.

A specimen of tobacco in the leaf, which your committee believe would compare in size and thickness with any raised in the Southern States.

Your committee, in conclusion, would say, that if they have overlooked any article, it was an error, and their excuse will be a want of time, &c.

DANIEL S. BACON,
LEWIS DARRAH,
P. K. ZACHARIAS,
THOMAS CLARK,
ROBERT LAWRENCE.

—

PRODUCTS OF THE DAIRY.

The committee on products of the Dairy beg leave to report, that having made a careful examination of the specimens exhibited, are of the opinion that specimen No. 77 is entitled to the first premium (made by Mrs. Sackett,) and No. 63 to the second premium (made by Mrs. Lewis Darrah.) Your committee regret that the regulations for the present year prevent the bestowal of more than two premiums, believing that Nos. 80, 81 and 22, presented by Mrs. Nelson

and R. Ingersoll, Esq., were richly deserving of premiums; in fact it would have been difficult for your committee to have decided in relation to Nos. 80 and 22, had they been called upon so to do, all of it being of a superior quality.

Your committe did not find it as difficult to decide in reference to the quality of the cheese presented for premiums, but few specimens being exhibited. Your committee award to No. 88 the first premium (made my Mrs. John Johnson,) and to No. 76 the second premium (made by Mrs. L. Sackett.) If your committee could be allowed to make one suggestion in reference to the future action, it would be, that inasmuch as the products of the dairy are fast becoming of great importance to our county, that the number of premiums on butter and cheese be greatly extended, even to the number of 1, 2, 3. 4, 5 and 6 in quality, and an equal number on cheese, as tending greatly to increase the number of specimens exhibited, and creating a corresponding, as well as a commendable spirit of competition in the manufacture of a superior article.

MRS. L. HARVEY,
MRS. M. HURD,
MRS. ROWE.

—

DOMESTIC MANUFACTURES.

The committee on domestic manufactures have examined the various articles submitted to their consideration, and report as follows:

To Mrs.	L. Darrah, best woolen carpet,	$2 00
do	M. Fishburn, 2d best do	1 25
do	J. Bradford, 3d do do	1 00
do	J. Johnson, best rag do	1 75
do	M. Hurd, 2d do do	1 25
do	M. A. Loose, best quilt,	1 87
do	Nelson, 2d do	1 37
do	W. Wadsworth, 3d best quilt,	1 00
do	D. A. Woodward, do coverlet,	1 50
do	J. Bradford, 2d do do	1 00
do	M. Mason, best shawl,	1 00
do	M. Hurd, do stocking yarn,	50
do	W. P. Clarke, best pair stockings,	87

To Mrs. Stuart, 2d best pair of stockings,	$0 50
do W. P. Clarke, best sewing silk,	1 00

MRS. E. F. SMITH,
MRS. G. T. BUCKLEY,
MRS. W. WADSWORTH,
MRS. D. A. WOODARD.

—

FANCY ARTICLES.

The committee, after an examination of the various fancy articles presented to them for ispection, have awarded premiums to the foling persons:

To Miss J. Smith, best lamp mat,	87½
" do H. F. Smith, best crochit purse,	87½
" Mrs. Withington, 2d do do	37½
" Mrs. H. Smith, best basket,	25
" Miss F. Mallory, do worked cape,	50
" do E. Hubble, do work perf. paper,	12
" do Mallory, for worsted work,	50
" do H. F. Smith, for pin cushion,	25
" Mrs. W. P. Clarke, for the best Tidy,	37½
" do L. Darrah, 2d do	25
" do M. Fishburn, for fly brush,	12½
" do W. P. Clarke, for worked cap,	25
" Miss H. F. Smith, for work box,	37½
" Mrs. E. Boyd, for flannel skirt,	25
" Miss M. Harvey, for seed bag,	25
" do Walsh, embroidered pocket handkerchief,	50
" do S. Conant, for pencil drawing,	50
" do E. P. Smith, embroidered slippers,	25
" do Bisbee, for boot marks,	25

The committee regret that the limited means obliged them to pass unnoticed many beautiful articles, well worthy of attention.

MRS. W. P. CLARKE,
MRS. HALL,
MRS. L. DARRAH.

REPORT ON FIELD CROPS.

The committee on Field crops, report as follows: They award to John Mulholland the first premium on Wheat, yield 42 10-23 bushels per acre.

They award to A. J. Keeney the second premium on Wheat; yield 30 bushels per acre for 13 acres.

They award the first premium on Corn to E. Barns; yield 90 bushels per acre.

They award to Riley Ingersoll the first premium on best acre of Beans; yield 25 5-60 bushels.

Your committee would recommend in future that competitors for premiums be required to keep and present correct accounts of the actual cost of raising crops.

S. M. BARTLETT,
C. M. HUMPHREY,
A. G. BATES.

REPORT ON GRAIN, FRUIT AND VEGETABLES.

The committee on grain, fruit and vegetables, having made as minute an examination of the great number and variety of the articles produced, as the crowded state of the Hall and the short time assigned them, would permit, beg leave to report:

That the exhibition of fruit was not only numerous, but were of the most approved and modern varieties, and your committee do not hesitate to say, that they were equal, if not superior, to any similar exhibition in this or any other country. Your committee award the 1st premium on fruit, being the golden russet apple, to John Miller. To Wm. H. Montgomery the 2d premium on Newtown pippins.

There was not so large an exhibition of grains, but that presented was of an excellent quality; and your committee award the 1st premium on the best two bushels of wheat to John Mulholland; 2d best two bushels to Jas. Mulholland.

On best bushel of corn to H. Carter.
" 2d do do to S. M. Bartlett.
On best bushel of beans to Jas. Davenport.
" 2d do do to R. Ingersol.
On best bu. of potatoes to E. Day.
" 2d do do to H. Carter.

Your committee would further report, that there were exhibited a great number and variety of apples, in quantities not sufficient to entitle the owners to premiums, and while upon this subject it is but an act of justice to state, that Mr. A. J. Keeney exhibited, and they were understood to be taken from his own orchard, twenty-five different kinds of apples, of a very superior variety and quality.

All of which is respectfully submitted.

HENRY N. CARTER,
WILLIAM P. HUBBLE.

—

SHEEP.

The committee on sheep having made an examination of the sheep, which were not extensive, beg leave to report, that in such examination we award to Jacob Wilson the first and third premiums for bucks.

To Munson Hurd the first and second premiums on ewes;

To best six sheep to Munson Hurd;

To 2d best to A. J. Keeney, being a very superior kind, half breed Licestershire;

All of which is respectfully submitted.

E. BABNES,
A. G. BATES.

—

PLOWING MATCH.

The undersigned committee on the plowing match, award the first premium to Horatio Hurd, and the second to W. H. Stoddard.

L. CARLETON,
W. W. GALE,
WM. HANSON.

—

WORKING OXEN AND STEERS.

The committee on working oxen and steers beg leave to report, that there were exhibited several very fine yoke of cattle, such as it is an honor to this or any other county to produce, and they regret that it is not within their province to award to each individual owning such noble animals, a premium as a testimonial of their gratification on witnessing such a demonstration of the adaptation of our county to grazing purposes. But being restricted to the first and

second best, we award to Edward Hotchkiss, of Exeter, the first, and to Nathan Langdon, of Ida, the second premium on working oxen. There were some very fine steers exhibited, among which were four yoke belonging to Alfred Potter, of Dundee, to whom the committee award the first and second premium on three year old steers.

Respectfully submitted.

W. H. MONTGOMERY,
EMERSON CHOATE,
MUNSON HURD.

—

NEAT CATTLE.

The committee on neat cattle recommend premiums as follows:

Best fatted ox, Harvey Stone,	$3 00
2d best, Alfred Potter,	2 00
Best Devon bull, S. M. Bartlett,	5 00
2d best, Eleazor Barnes,	3 00
Best Durham bull, A. G. Bates,	5 00
2d best, Mr. Webb,	3 00
Best grade bull, J. J. Wendell,	3 00
2d best, James Frost,	2 00
Best native bull, Alfred Potter,	3 00
2d best, James Davenport,	2 00
Best calf, J. Gale,	2 00
2d best, S. M. Bartlett,	1 00

WM. HITCHINS,
JARED AGNEW.

—

SWINE.

The committee on swine award the first premium for best boar to James Wendell; for second best to T. Galloway; best sow and four pigs to Munson Hurd; best fatted hog to Mr. Burns.

H. B. MARVIN,
J. MULHOLLAND,
L. HARVEY.

—

HORSES.

The committee on horses and colts have made a full examination,

and would report that there were a large number to be examined, well worthy of consideration; but your committee award to John B. Cicott, for the best three year old colt; to 2d best, George Willard; for the best two year old colt, to R. Ingersoll; for 2d best, Alfred G. Bates; for the best yearling colt to Jared Agnew; for 2d best to C. Hall; for best span of working horses to Warren Stoddard; for 2d best to Wm. B. Williams; for best span of matched horses to T. G. Cole; for the best single horse to I. R. Grosvenor.

Your committee would further report, that they were shown on the second day a fine blooded mare, belonging to Mr. Farrington, and also one belonging to Mr. Latcham, both worthy of premiums, but believing they were not entered according to the rules of the society, they do not award premiums, but recommend the same to the favorable consideration of the executive committee.

GEO. GRAHAM,
S. MULHOLLAND,
S. B. WAKEFIELD.

We, the undersigned, committee on stallions and brood mares, award as follows, viz:

To J. B. Wakefield, for the best, 1st premium.
" Samuel Clarke, 2d premium,
" A. G. Bates, 1st premium on brood mares.
" Jared Agnew, the 2d premium.

L. CARLETON,
GEO. WILLARD,
WM. ATKINSON.

Oakland County Agricultural Society.

The annual meeting of the Oakland County Agricultural Society was held according to the requirements of the constitution on the first Tuesday of January, 1850. The following persons were elected officers of the society:

James B. Hunt, President; H. N. Howard, Secretary and Treasurer; and Isaac J. Voorhies, John Thomas, Linus Cone, Joseph Todd, Charles Baldwin, Frederick A. Williams, Andrew C. Walker, A. S. Brooks, Harrison Voorhies, and Luman Fuller, were elected the Executive Committee.

The Executive Committee elected Linus Cone Chairman of the committee, and F. A. Williams, Secretary. The Treasurer, A. B. Hadsell, reported that there was fifty dollars in the treasury, after paying the premiums and expenses of the fair, which sum was paid over to his successor.

The executive committee agreed to meet on the first Monday of June, at the Court House in Pontiac. The meeting then adjourned.

On the first Monday of June, the executive committee met in pursuance of adjournment. Present—Linus Cone, Charles Baldwin, Isaac J. Voorhies, A. C. Walker, Joseph Todd, A. S. Brooks and Harrison Voorhies.

Harvey Seeley was elected a member of the executive committee, in the place of John Thomas, who has left the State. The sum of five hundred dollars was appropriated to pay premiums for the ensuing year, exclusive of any discretionary premiums that might be awarded. The county fair was decided to be held at Pontiac, on the second Wednesday and Thursday of October next. A committee, consisting of Isaac J. Voorhies, James B. Hunt, and Joseph Todd, were appointed to make out a premium list for the ensuing year, and to be presented at the next meeting. The meeting then adjourned until the first Monday of July, at the same place.

On the first Monday of July the committee met pursuant to adjournment.

The following persons were appointed examining committees, to wit:

On Farms—Messrs. A. Whitehead, H. N. Howard and Nathan Power.

On Cattle—Messrs. John H. Bulton, John W. Leonard and Avon Burley.

On Horses—Messrs. A. J. Boss, Stephen Rogers and John L. Smith.

On Sheep—Messrs. George W. Collins, Rollin Sprague and Elbridge Deming.

On Swine—Messrs. John Springer, William Davis and Lewis Covert.

On Farming Implements—Messrs. Theron W. Barber, George Satterlee and John Fisher.

Plowing Match—Messrs. James Bailey, Sebrow Voorhies and Walter Whitfield.

On Butter and Cheese—Asa B. Hodsell, Peter Hogan and R. P. Bateman.

On Domestic Manufactures—Messrs. A. B. Matthews, W. M. McConnell, and Mrs. O. D. Richardson, Mrs. Amos Hubbard, and Mrs. J. B. Hunt.

On Needle, Shell, Wax Work, Paintings and Drawings—Mrs. Isaac J. Voorhies, Miss Mary Van Valkenburg, Mrs. Almon Mack, Mrs. A. C. Walker, and Mrs. Edward U. Peck.

On Flowers—Mrs. Alfred Williams, Mrs. George Collins, Mrs. Harrison Voorhies, Mrs. James Newberry, and Miss Eliza Voorhies.

On Fruit—Messrs. Amos Hubbard, Almerin Whitehead, and Mr. Sanford, of Novi.

On Vegetables—Messrs. Sherman Stevens, John Chamberlin and Amasa Andrews.

The executive committee appointed Harvey Seeley and Frederick A. Williams, a committe to erect the necessary buildings for the fair, and to superintend the grounds and preparations for the fair.

On motion, Hiram A. Rood, Esq., was added to said committee.

The executive committee then adjourned to meet on the last Monday of September at the same place.

The committee met pursuant to adjournment, and examined the grounds where the fair was to be held, and made the necessary arrangements previous to the fair, and then adjourned to meet on the ninth of October next.

On said day the fair was held, and the executive committee met and filled the vacancies in the several examining committees; the attendance of members was much larger than the preceeding year. The fair was also held on the second day, which proved exceedingly stormy and disagreeable and very few persons or families attended from any distance from the place of holding the fair.

The receipts for new members was	$116 00
do do old members at half price was	99 00
do do shilling tickets was	138 68
There was received from the county treasury	130 00
	$483 68

The sum of about $228,00 was raised by tax, which leaves in the county treasury about $98,00.

T amount of premiums paid was	$458 00	
Expenses	73 68	
	$531 68	
In the treasury	50 00	
	$481 68	
		481 68
		$2 00

Which balance of $2, and $98 in the county treasury, leaves a balance on hand of $100.

The following premiums were awarded, on cattle:

To J. B. Ward,	for the best	2 year old,	short horn bull.
"	"	2	heifer.
J. L. Brownell,	"	3	Devon bull.
A. S. Brooks,	"	6	grade bull of foreign growth.
Harvey Seeley,	"	3	bull without distinction of breed.
A. Wattles,	"	2	" " " "
Calvin A. Green,	2d		" " " "

Thompkins Bugbee, best yearling bull, without distinction of breed.
Liman Brownson, 2d best " " " "
Calvin A. Green, best bull calf " " " "
L Dunlap, 2d best " " " " "
Stephen Rogers, best cow " " " "
Isaac L. Smith, 2d " " " " "
Gideon A. Scott, 3 year old heifer " " " "
A. B. D, Bogart, 2d best 3 yr. old " " " "
Riley Shaw, best 2 year old " " " "
Stephen Rogers, 2d best 2 yr. old " " " "
Riley Shaw, best yearling " " " "
I. Hadles, 2d best " " " " "
Harvey Seeley, best heifer calf " " " "
Stephen Rogers, 2d best " " " " "
Daniel Whitfield, best yoke of working oxen.
Joseph M. Irish, 2d best do
Isaac L. Smith, best pair of 3 year old steers.
I. M. Ellis, 2d best do
D. Houlson, best pair of 1 year old steers.
George Tibbets, best fat cow.

HORSES.

Luman Fuller, best stallion.
Christopher Truax, 2d best do.
William White, best mare and colt.
Nathan Tower, 2d dest do
George Culver, discretionary premium on two brood mares.
B. B. Mosier, best 3 year old brood mare.
L. Raffenburgh, 2d best do
F. A. Williams, best 2 year old stallion.
B. Hillicker, 2d best do
Wm. Lewis, best yearling mare colt.
Chas. Tilden, discretionary premium on a yearling colt.
Luman Fuller, best pair of matched horses.
Christopher Cole, 2d best do
Harvey Seeley, best gelding.
William Belden, 2d best do
Nathan Ferry, discretionary premium on brood mare.

SHEEP.

F. A. Williams, best merino buck.
Calvin A. Gneu, 2d best do
F. A. Williams, best 5 merino ewes.
C. A. Chipman, 2d best do
J. G. Simmonson, best saxon buck.
Daniel Whitfield, best lot of 5 long wooled ewes.
Walter Whitfield, best down buck.
" " 2d best do
William Whitfield, best down ewes.
" " 2d best do
C. A. Gneu, best fat sheep.

The committee report that other sheep were exhibited, which in the opinion of the committee were equal or superior to those for which premiums were awarded. Of this class were a lot of 5 bucks, exhibited by J. A. Peck, of Pontiac, two saxon bucks of Nathan Davis, of Troy, a French merino by Mr. Newton, of Avon, a French merino and three lambs of Mr. Schuyler, of Royal Oak, and a merino buck of A. C. Walker, of Farmington. As these sheep did not fall within the regular lists for premiums, the committee recommend the following premiums:

J. A. Peck, for 5 merino bucks.
Nathan Davis, two saxon bucks.
Harris Newton, one French merino buck.
Mr. Schuyler, of Royal Oak, one buck and three lambs, French merino.
A. C. Walker, one merino buck.

SWINE.

William Whitfield, best berkshire boar.
Erastus Sherwood, 2d best boar.
John Valentine, best breeding sow.
Samuel Rood, 2d best do
John Valentine, best six pigs.
Samuel Hubbell, 2d best do

FARM IMPLEMENTS.

Mortimer Smith, best plow for general purposes.
" " " sub soil.

Orvill C. Morris, best nine tooth cultivator, for general purposes.
Ezra Curtis, best ox yoke.
Charles Brady, best double harness.
Charles Brady, best single harness.
" " " bridle.
Lyon & Simmons, best grain cradle.
" " " parlor stove.
" " " cook stove.
" " " telegraph churn, dis. pre.
William Ives, Jr., tread horse power, dis. pre.

PLOWING MATCH.

Joseph A. Peck, 1st premium.
William Whitfield, 2d "
Harvey Seeley, 1st with oxen.
William Osman, son of Israel Osman, boy, 1st pre.
Abijah Osman, son of Isaac Osman, boy, 2d pre.

BUTTER & CHEESE.

John Windiate, 1st premium, best butter in rolls.
Harrison Voorhies, 2d best do
J. Durgee, 3d best do
John Windiate, best in tubs.
A. C. Walker, 2d best do
O. D. Richardson, 3d best do
John Griffith, best old cheese.
Luther Laphem, 2d best do
John A. Murrey, 3d best do
D. Laphem, best new cheese.
John A. Murrey, 2d best do
Luther Laphem, 3d best do
Samuel Rogers, best lot of maple sugar.
George W. Collins, 2d best do
E. Furbush, best box of honey.
S. P. Wicoff, 2d best do
R. L. Johnson, discretionary premium on roll butter, beautiful lot overlooked by the examiners.
Samuel Rood, best bee hive.

DOMESTIC MANUFACTURES.

Mrs. Geo. M. Collins, best woolen blanket.
" L. C. Hiller, 2d do do
" Benj. Phelps, best 10 yards flannel.
Richard Brownson, 2d do do
do best 10 yards fulled cloth.
James Bailey, 2d do 10 do
Mrs. George Tibbetts, best 10 yards of wool carpet.
" J. Richardson, 2d do 10 do do
" Moses G. Spear, do 10 yards rag carpet.
" Isaac I. Voorhies, 2d best 10 do do
" George W. Collins, do pair silk stockings.
" James Bailey, best knit wool stockings.
" George Washburn, 2d best do do
" I. Durkee, best knit wool socks.
" Isaac I. Voorhies, best knit mittens.
" Geo. W. Collins, do cotton stockings.
do do best linen do
do do 2d do do do
Mrs. Isaac I. Voorhies, do wool shawl.
Miss Eliza do 2d do do
Mrs. Geo. W. Collins, best cotton and wool blankets, disc'y pre.
" I. Durkee, best 10 yards flannel, "
" I. Richardson do coverlet, "
C. D. Richardson, do currant wine, "
H. A. Rood, 2d do do "
Harrison Voorhies, best grape wine, "
Mrs. George W. Collins best lot sewing silk, "
" do 2d do do "
Wm. Cahoon, do artificial teeth, full sett "
Mrs. A. Barber, best cotton and wool carpet, "

NEEDLE, SHELL WORK, &c.

Mrs. Perry, ornamental needle work.
" M. S. Fish, group of wax flowers.
" A. Stone, best specimen of shell vase wax flowers.
" A. Lull, do piece of worsted work.
" S. Hilton, do vase of worsted flowers.

Mrs. A. H. Hanscom, best two lamp mats.
" A. C. Hubbard, do lace cape.
" H. A. Rood, best landscape painting in oil.
" do do painting in water colors.
" Randell, do straw bonnet.
" I. Hendrickson, do hat.
Miss Chipman, best crochet hat.
Mrs. O. P. Davidson, best chain work with needle.
" Jas. B. Hunt, do white quilt.
" Isaac I. Voorhies, do worked do
" C. C. Lee, do silk bonnet.
" O. P. Davidson, do ornamented shell work, disc'y pre.
" H. A. Rood, do lace cape, "
" do do painting in water color, "
" J. L. Brownell, do worked quilt, "
" A. H. Hanscom, do worsted scarf, "
" H. A. Rood, do painted window shades, "
" do do worked stand and cushion, "
Miss Almira LeRoy, do nomochromatic painting, "
Mrs. O. D. Richardson, do do do "
" H. A. Rood, one pencil drawing, "
" I. G. Bishop, do cambric shirt, "
" Wm. Abertson, one patched work quilt, "
" A. Spear, two painted window shades, "
" A. H. Hanscom, 5 tidies, "
Alonzo Sherwood, specimens of daguerreotypes, "
Miss A. Chipman, crochet collar, "
Mrs. O. D. Richardson, 2 linear drawings, "

FLOWERS.

Mrs. A. H. Hanscom, best floral design hearth rug.
Mrs. O. D. Richardson, flat boquet.
" A. H. Hanscom, best variety of phloxes.
" do round boquet.
" James B. Hunt, most beautifully arranged basket of flowers.
" O. D. Richardson, house plants.
" Samuel Brotterlow, vase of flowers.

VEGETABLES.

E. E. Sherwood, best 12 flat turnips.
Cyrus Clark, best 6 blood beets.
D. C. Hiller, best 12 onions.
Best 6 cabbages—name not found.
H. N. Howard, best 12 tomatoes.
Linus Cone, best 12 pumpkins.
Stephen Durkee, best 12 sweet potatoes.
David Cummings, best half bushel of potatoes.
N. D. Brigham, best half bushel of beans.
Sherman Stevens, best variety of garden vegetables.
N. D. Brigham, best bushel of wheat.
" " do do corn.
A. B. Matthews, best bbl. of flour.

FOWLS.

Walter Whitfield, best Poland fowls.
J. B. Wicoff, best turkies.

FRUIT.

Luman Brownson, best and greatest variety of table apples.
H. Waldron, best seedling apples.
A. C. Hubbard, best six varieties of winter apples.
Cyrus Clark, best six specimens of Esopus Spitzenburgs.
Isaac J. Voorhies, 2d best " "
Samuel Rood, best variety of Stevens pear.
Ira C. Seeley, 12 peaches.
Samuel Rood, best variety of seedling peaches.
Benj. Phelps, best 12 quinces.
O. R. Adams, 2d best 12 quinces.
O. D. Richardson, best collection of grapes.
L. Burch, best bunch Catawba grapes.
" " lot of apples, dis. pre.
A. Cary, do do
Riley Shaw, do do
Linus Cone, melon apple, do
Samuel Rood, do do
Francis Smith, do do

Geoege W. Collins, winter pears. dis. pre.
A. Audnes, oz. apples, do
C. A. Chipman, oz. apples, do
Jacob N. Voorhies, do do
L. W. Adams, do do
Joel Loomis, fall apples, do
" " seedling apples, do
Walter Whitfield, oz. apples, do
James Bailey, do do
John Osman, do do
Samuel Hilton, russet apples, do
James M. Friszbee, do do

The executive committee met on the first Tuesday in January, 1851, and awarded the following premiums:

FARMS.

Linus Cone of Avon in said county, a map of the farm is herewith submitted, &c., first premium of $15 00

FIELD CROPS.

Linus Cone, for best 12 2-100 acres of wheat 8 00
N. D. Bingham, for best ½ acre of potatoes 4 00

The Hon. J. Van Valkenburgh was appointed by the executive committee at their meeting in July, to deliver the annual address to the society; but owing to severe indisposition during the months of August and September, and down to the annual meeting, his health was so bad that he was unable to comply with the request of the society.

H. N. HOWARD, Sec'y.

WHEAT.

LINUS CONE'S STATEMENT.

To the Executive Committee of the Oakland Co. Agricultural Society:

The undersigned being desirous of competing with others for the premium offered for the best crop of wheat, would respectfully submit the following statement:

[illegible] contains, according to the plat and statement of the surveyor herewith annexed, 12 and 2-100 acres of land. It was origi-

nally covered with a heavy growth of timber, principally oak—the undergrowth principally hazel, with some thorn and plum bushes. It was cleared, part twenty, and part twenty-five years ago. The soil is mostly a clayey loam, with spots of sandy and gravely loam, resting on a sub-soil of clayey loam.

There were many stones and large boulders on the land, which have been principally removed. There were several small basins where water stood most of the season, which have been drained, the larger ones by under-drains, the smaller ones by plowing outwardly, deep, and repeatedly, until a small hollow was formed sufficient to carry off the water. The ground was tilled after the too-common method for many years, that is, constant cropping and shallow and imperfect tillage, until crops began to fail. Some nine years since, after putting on about fifty loads of manure on the poorest places, the field was plowed deep and put into wheat, and seeded to clover. Plaster, at the rate of fifty pounds per acre, was put on in the spring following. The next season it was in pasture, the next in wheat with a heavy growth of clover plowed under, and the next fallowed and sown again; and notwithstanding nearly two acres of the last crop was destroyed by the stopage of drains, the three crops averaged not far from forty-two bushels per acre. The field has received an annual dressing of plaster, but has received no other manure or fertilizer, but the above mentioned.

I have been thus particular, to show the capacity of Michigan lands to produce wheat, provided they have a fair chance. Before giving a detailed statement of the method of cultivation, and amount produced, I would remark that the crop was lessened materially, by the storm that occurred on the 27th of June, and also by being stored in buildings where the scatterings were lost, both in storing and moving to the mschine while threshing. The field remained in pasture one season; the next a heavy crop of clover was plowed under, to the depth of ten inches, and the plowing finished, except a small strip, the 5th of July, 1849.

CROP OF WHEAT.

DR.

To plowing 7 days with 3 pr. of oxen, 1 pr. horses, 2 men and 1 boy, 24s.	$21 00

To harrowing 2 days with team, 8s.	$2 00
" cultivating 2 do	2 00
" 19½ bushels seed, 8s.	19 50
" sowing 1 day, Sept. 22, 5s.	63
" cultivating 3 and harrowing 1 day, 8s.	5 00
" 6 loads damaged straw spread on land, and burnt before sowing, cost of straw and labor,	4 75
" furrowing and cleaning furrows 2 days,	1 50
" 600 lbs. plaster sown in spring, 4s.	3 00
" weeding (dock) ½ day, 5s.	31
" harvesting and hauling 37 days, 7s.	32 38
" team,	1 50
" threshing and cleaning,	28 82
" interest on value of land,	7 56
	$128 95
Profit to balance account,	291 80
	$420 75

CR.

By 545 bushels of wheat, 6s.	$408 75	
" straw,	12 00	
		$420 75

I have charged for labor what it cost me by the month, adding about 15 or 20 cents per day for board, and at the same rate for myself. Boys labor when with team, the same. I have charged the same through the season; most of the team work was done with oxen at three shillings per day.

In computing interest on land I have thrown aside my own opinion of its value, and rested it upon the judgment of assessors, who are (I believe) sworn to estimate it at its "fair cash value."

LINUS CONE.

This is to certify that I have assisted in harvesting, threshing and measuring the above crop; that it was measured in an exact half bushel according to the county standard, and that the sample produced is a fair one.

LINUS CONE.

State of Michigan, Oakland county, ss:

Linus Cone, of Troy, in said county, being duly sworn, deposes

and says that the facts set forth in the within statement made by him in relation to the crop of wheat raised by him on his farm, during the past year, is substantially correct according to the best of his belief, and further says not.

LINUS CONE.

Sworn and subscribed before me this 7th day of January, 1851.

JAS. B. HUNT,
Circuit Court Com'er, Oak. Co., Mich.

This is to certify that I have assisted in harvesting, threshing and measuring the crop of wheat raised last year on lot No. 1 of the farm of Linus Cone, that there were 545 bushels.

RILEY C. CONE.

Sworn and subscribed before me the 6th day of Jan., A. D. 1851

BENJAMIN PAGE,
Justice of the Peace.

—

NATHANIEL D. BINGHAM'S STATEMENT OF POTATO CROP.

I do hereby certify that I have this day surveyed for Nathaniel D. Bingham a certain piece of land situated in the township of Brandon, county of Oakland and State of Michigan, and on the north east quarter of section thirty-one in said township, and on the farm where the said Bingham now resides, beginning at a stake, thence south six rods and twenty-five links; thence west ten rods and forty-five links to a stake; thence north six rods and twenty-five links to a stake; thence east ten rods and forty-five links to the place of beginning, making eighty-two rods of land.

JAMES G. HORTON, *Surveyor.*

Dated at Brandon, January 4, 1851.

Sworn and subscribed before me this fourth day of January, 1851

NATHANIEL D. BINGHAM,
Notary Public.

—

We, William F. Bingham and Lee Bingham, do hereby certify that we dug and measured in October last past, one hundred and

twenty bushels of potatoes from the above described eighty-two rods of land as measured by the subscriber, James G. Horton.

LEE BINGHAM,
W. F. BINGHAM.

Dated at Brandon this 4th day of January, 1851.

—

The soil on which the said potatoes were raised was a mixture of gravel, sand and loam, cultivated as follows: green sward broke up deep the year previous and planted to Indian corn. Had an excellent crop. On the 12th day of June last, I plowed the same land, and planted my potatoes in hills four feet apart each way on the 15th day of the same month. The potatoes were fully ripe in October following, and of excellent quality. The kind of potatoes planted were Sardines and English whites.

NATHANIEL D. BINGHAM.

Brandon Oakland Co., Jan. 4, 1851.

Shiawassee County Agricultural Society.

SHIAWASSEE, Jan. 27, 1851.

J. C. HOLMES, Esq.

Dear sir—I received a few days since, by Mr. Owen, nine copies of Trans. of Michigan State Ag. Soc., accompanied by a note from yourself, asking for a report of the organization of our county society Our society was organized April 25th, 1850. David Bush was elected president; R. W. Holley, Allen Beard, Joseph Howe, Sullivan R. Riley, Clement Johnson, G. W. Slocum, Levi Rowe, Lewis Simpson, Horace Green, J. Rush, Liberty Lyman, Truman Bruce, George Harrington and John Thompson were appointed vice presidents. M. B. Martin, Isaac Gale, W. A. Chaffee, L. H. Parsons, C. S. Post, W. Wheeler, J. W. Dewey, J. P. Shaft, A. Thomas, Milan Glenn, E. Brown, J. Wilkinson and J. Woodhull were appointed corresponding secretaries. We adopted a constitution much the same as that of the State Agricultural Society, substituting county for State, and towns for counties.

Our cattle show fair was held at Corrunna, Oct. 3. The exhibition, though not large, was very creditable, and awakened great interest in the success of the society.

I herewith send you a list of the premiums offered, a copy of the president's address, a list of officers for the present year, and the report of the executive committee for the last year.

Yours very truly,

J. B. BLOSS.

REPORT OF THE EXECUTIVE COMMITTEE.

This society was formed on the 25th of April, 1850. Although the society has many warm and devoted friends in the county, yet it has labored under many discouragements. The year of 1849 was a year of very short crops, especially wheat, which is our main dependence for cash, and very few men in the county had a dollar which

they knew how to spare to make themselves members of the society. The executive committee therefore gave the town officers of the society directions to take the notes of such as were willing to become members, payable the 1st of Sept., that the executive committee might have some basis on which to offer premiums. Some persons in the county have looked upon the movement as premature, that it could not succeed, that the county is yet too poor. But, fellow citizens, are we not too poor to be without such a society to stimulate and aid us, and is not this the very best means to make us richer? Does any individual look upon the money he has paid into the society as lost? Does it not rush directly to the pocket of some neighbor, who is spreading the benefits of his improved stock all around him, or of his successful experiments or improvements?

The executive committee, anxious to have a fair that would call out the people of the county, and to offer such premiums as would induce persons in the county to bring out their stock and productions, called upon the Vice Presidents and Corresponding Secretaries, by sending them circulars, to meet them at Corunna at their meeting in June last, to consult and learn what amount would probably be raised from the several towns from the fees for membership. Quite a large number of the officers of the soctety, of the several towns responded to the call. After getting the estimate which would probably be raised from the several towns, and much consultation upon the subject, the premiums which we have since published were agreed upon. The fund which the law of 1848 & '49 directs the supervisors to raise by tax, cannot be available the present year, but will be a fund in the hands of the treasurer another year probably of something over $80.

At a meeting of the executive committee in June, as another means of raising funds to aid the society, a resolution was passed to hold the annual meeting and fair at that place in the county that give the largest amount to the funds of the society, and the executive committee held an adjourned meeting at Shiawassee, to receive proposals from the several villages in the county. But three offers were received. Shiawassee and Fremont offered $30 each, and Corunna offered $69, and the annual meeting and fair was accordingly given to that place.

LIST OF PREMIUMS.

HORSES.

1st prem.	for best stud horse,	to Isaac Castle,			$5 00
2d	do	do	do	Clement S. Johnson,	3 00
1st	do	do	brood mare,	to Ezekiel Cook,	5 00
2d	do	do	do	Robert Crawford,	3 00
1st	do	do	three year old mare colt,	N. Clark,	3 00
2d	do	do	do	do A. Purdy,	2 00
1st	do	do	two year old stud colt,	A. Dewey,	2 00
2d	do	do	do	do C. S. Johnson,	1 00
1st	do	do	yearling colt,	R. Crawford.	1 00
2d	do	do	do	Arthur Kytes,	50
1st	do	do	spring colt,	J. O. Hinckley,	1 00
2d	do	do	do	Ezekiel Cook,	50

NEAT CATTLE.

1st prem.,	best 3 year old bull,			Robert Crawford,	5 00
2d	do		do	J. B. Bloss,	5 00
1st	do	1	do	Henry Hunt,	3 00
2d	do		do	Hiram Johnson,	2 00
1st	do	cow,		Clement S. Johnson,	3 00
2d	do	do		C. S. Johnson,	2 00
1st	do	3 year old heifer,		Henry Hunt,	3 00
2d	do	do	do	do	2 00
1st	do	working oxen,		J. M. Hartwell,	5 00
2d	do		do	J. B. Dunlap,	3 00
1st	do	fat cow,		J. Roye,	2 00
1st	do	3 year old steers,		S. H. McCoy,	3 00
1st	do	2	do	C. S. Johnson,	2 00
2d	do	do	do	J. Wilkinson,	1 00
1st	do	working steers,		J. Wilkinson,	2 00
1st	do	bull calf,		C. S. Johnson,	3 00
2d	do	do	do		2 00
1st	do	heifer calf,		A. Lemmyou,	2 00
2d	do	do		L. K. Minor,	1 00

SHEEP.

1st prem.,	best merino buck,		I. Gale,	3 00
2d	do	do	Isaac Gale,	2 00

3d pre., best merino buck, R. C. Rathborn,	$1 00
1st do coarse wool buck, A. C. Cooper,	1 00
1st do merino ewes, I. Gale,	3 00

GRAIN.

1st premium for corn, S. Reynolds, (64 bush. to the acre,)	3 00
1st premium for oats, L. K. Minor, (53¾ bush. to the acre,)	3 00
2d do do Ira Stimpson, (40 bush. to the acre,)	2 00

MISCELLANEOUS.

1st pre. best cheese, Anthony Vanaukin,	3 00
2d do H. Wheeler,	2 00
3d do L. Lyman,	1 00
1st pre. best butter, Humphrey Wheeler,	3 00
2d do P. S. Lyman,	2 00
3d do H. Hunt,	1 00
1st pre. best 10 yards woolen cloth, N. Kimball,	3 00
2d do do Joseph Hedges,	2 00
1st pre. best 10 yards flannel, P. S. Lyman,	3 00
2d do do do	2 00
1st pre. best wool carpet, Mrs. Betsey Kimball,	3 00
2d do do Mrs. L. Lyman,	2 00
1st pre. best rag carpet, Julian Harder,	2 00
2d do do Mrs. Mary Lyman,	1 00
1st pre. best boquet, " "	1 00
Best two horse wagon, I. Castle,	4 00
" plow, G. W. Harris,	2 00
" straw cutter, L. K. Minor,	1 00
" hay rack, Ira Stimpson,	1 00
" apples, —— ——,	50
" grapes, A. McArthur,	50
" peaches, J. B. Bloss,	50
" pears, Wm. Newbury,	50

UNENUMERATED ARTICLES.

Best currant jelly, Mrs. Dr. Harder,	25
" currant wine, R. C. Rathborn,	50
2d best do Mrs. B. Kimball,	13
Best strawberry preserves, Mrs. Mary Ann Williams,	25
" ice plant, Miss Margaret McArthur,	13

Best straw bonnet, Mrs. Betsey Kimball,	$0 75
" straw hat, " "	25
" box honey, A. Griffis,	75
2d best do P. S. Lyman,	50
Best barrel flour, Walter Waters,	1 00
" pork barrel, A. Griffis,	38
" flour barrel, A. Griffis,	25
" hearth rugg, Miss M. Castle,	50
2d best do Mrs. B. Kimball,	25
Best mat, Mrs. Betsey Kimball,	50
" coverlet, Mrs. Betsey M. Bruce,	1 00
" counterpane, Mrs. J. Griffis,	50
" window shades, T. D. Dewey,	50
" cheese press, Joseph Ott,	25
" sausage cutter, do do	25
" axe helve, J. Roye,	12

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The address was delivered upon the ground by the President of the society, about 4 o'clock P. M., and on motion of H. Hunt, Esq., it was voted unanimonsly that a copy be requested for publication in the Shiawassee Democrat, which I herewith send you. After the address, the premiums were read off by the Secretary, and the following persons elected as officers of the society for the ensuing year:

Hon. Robert R. Thompson, President.

Joseph B. Bloss, Secretary.

Archibald Purdy, Treasurer.

I herewith send you likewise the report of the executive committee.

J. B. BLOSS,
Secretary.

Address delivered before the Shiawassee County Agricultural Society at its first Annual Meeting, at Corunna, Oct. 3d, 1850, by David Bush.

Friends and Fellow Citizens:

Custom has made it necessary that the President of our Agriculturrl Societies should at the annual meeting thereof, deliver a short address to its members, upon the objects to be attained, and the benefits to be derived therefrom. Unaccustomed to harrangue a popular assembly—never having plead at the bar or the forum, I throw myself upon your candor, and if you find in the few remarks I have to make, more space allotted to the pronoun personal than is meet, more English than is necessary, you will attribute it to the frailty of human nature—to the garrulity of an old man, whose talk has been with oxen—whose education was obtained, and whose life has been spent at the heel of the plow.

Having thus disposed of the exordium, I remark that the sole and only object of the society is, or ought to be the mutual benefit and advantage of the whole—to enhance the value of our real estate and our stock—to create a spirit of emulation—to excite a strife, an ambition, a desire to excel in the cultivation of our farms, and in the raising of stock. What individual is so misanthropic as not to be delighted with the *view* of a well cultivated farm? Who can pass by a well finished house, with the necessary barns, sheds, &c., for the comfort of man and beast, and not feel a glow of delight? Who can walk through a garden of fruit and flowers, and not feel his heart expand with the most grateful emotions? Who can ramble through the fields, clothed with the most beautiful verdure—listen to the bleating of herds and flocks—see the gambols of the lamb, the very emblem of innocence, and not feel himself a better man? Reverse the scene, and call to mind some miserable hovel, a bare apology for a house, where the smoke arises from one corner—a brush fence enclosing a small patch of ground on which are grown a few hills of potatoes, and the like number of hills of corn—where the cow and the pig are contending for the right of way to the door, and the wind

and the rain, the snow and the sleet are creeping through every crevice in the house—where the inmates are neither well fed or clothed—where the young are growing up without mental or moral cultnre—who, I ask, can look upon this scene without a sigh? I gladly turn from it. To avert such scenes—to enhance the sum total of virtue and happiness, and lessen the sum total of vice and misery is, or should be the object of all mankind. May we not hope that moral as well as pecuniary good may, and will result from the efforts of this society?

It will not be expected that I should enter into a *minute* description of any single product raised among us. All I shall attempt will be a few general hints concerning the past, present and future prospects of our county. That we have as rich a soil, as fertile, as prolific as any other county in the State, no one will deny. That many of our farmers are intelligent, industrious, frugal, economical and steadily advancing to wealth, happiness and independence, all will concede. It was well said by an English philosopher, that the man who by his superior skill and industry, caused two blades of grass to grow where but one grew before, was a *public benefactor*. To this I would add, the man who, by his precept or example, induces his neighbor to raise double the quantity of the fruits of the earth that he did before, is an honor to his country, a blessing to mankind, and well deserves the good will and esteem of his fellow citizens.

I would remark that wheat is now, and for aught that I can see, ever will be the great staple of our county. That land can be so cultivated as to increase its strength and fertility, there can be no doubt in the mind of any intelligent farmer. Western New York is proof in point. I know many farmers there whose yield of wheat is from fifty to one hundred per cent. more now, than it was when first brought under cultivation. By the aid of plaster of Paris, or gypsum and seeding down to clover, lands whose primitive soil was a light sand, have been made very productive.

I observed that my remarks would *be general*, that I should not mark out any particular course for every one to pursue; but leave each one to follow his own judgment according to his local situation; his means, his skill and abilities to manage a farm. So far as my knowledge extends in Western New York, farmers who depend prin-

cipally on wheat for their wealth, sow the same piece of ground every other year. Suppose he has 50 acres of good wheat land, he will make his calculation to sow one half this year, and the other half the year following. He will also either at the time of sowing his wheat or in the spring following sow clover, with a small mixture of herd's grass. (I prefer the spring season for sowing grass seed.) About the last of April or first of May he will sow broad cast one bushel of plaster to the acre, and this is done annually, both when the land is in stubble or in wheat. Such a course seldom fails to produce a good crop of wheat, and the feed on the stubble more than pays for the plaster. The June or July following, more generally the former, this clover is turned under and at the usual time harrowed, cross ploughed and sown, and a good crop of wheat is most sure to reward the husbandman. All will readily see that this rule is general and that each individual must vary from it according to circumstances.

One other method of growing wheat: say in April, plough up a clover lay or an old pasture, roll it well down with a heavy roller, sow peas at the rate of 2½ to 4 bushels to the acre, harrow until the land becomes finely pulverized. At the proper time harvest what may be necessary for seed, turn in your swine and let them harvest the rest. I knew one man in Western New York who used to cultivate some 60 or 70 acres in this way, at the same time fatted about the same number of swine. Will not some of my brother farmers try it?

I hardly need say, that in this case, the peas must be sown early or they will not ripen in season for plowing and sowing the wheat. And here let me remark, that from the 1st to the 20th Sept., is the best time for seeding, although it may be more liable to suffer from the Hessian fly when early sown,—at the same time, when late sown, it is more liable to *rust*, and should an early drouth occur in the spring, the crop is most sure to fail. I well know that there are exceptions,—but these are only isolated cases which do not militate against the general rule; one other remark, and I have done with the article of wheat, and that is from the report of the Hon. Edmund Bush, commissioner of patents. "Wheat raised on a strong rich soil, will produce from 6 to 10 per cent more nutriment than wheat grown on weak or poor land.". A fact new to me, but well worth the con-

sideration of every farmer or dealer in wheat; and if so with wheat, why not with every kind of grain?

The next thing to which I would call your attention, is the raising of sheep. Wool has this peculiar advantage over wheat, it costs much less to carry it to market. Although the price may be fluctuating and the farmer compelled to sell for what he thinks is a low price, still it will always pay the growing. Besides, sheep are the best kind of stock to turn upon a summer fallow. In fact, on our rich soil it is very difficult to eradicate the grass and weeds without them. Again, the farmer who raises 100 bushels of wheat to sell, may keep 50 sheep on his farm with very little additional expense. I had almost said they would nearly pay their way in the benefit to be derived from their manure.

I most cordially congratulate my fellow citizens upon the exhibition of horses and cattle here this day. Our stock has been improving for several years past, and there is no possible reason (there can be none,) why we should not raise as good, as valuable, as serviceable, as any produced by any other State in the Union.

It costs no more to raise a good colt or a good calf than a poor one; but there is quite a difference between a colt at three years old worth $100 or one worth $50, or a steer of the same age that you can sell for $25 or $12 50.

Another consideration. Horses or oxen that are well fed and kept in what is commonly called high order, will eat less than lean ones and at the same time perform more labor; hence it will follow that it is poor economy to keep more stock than we can keep well.

On the subject of swine, it has ever appeared to me that there was a greater variety than of any other domestic animal. Every farmer must be aware of this fact. All must have noticed it in the manifest difference sometimes seen in swine fed in the same drove, confined in the same pen, and slaughtered at the same time. More attention paid to the selection of choice breeds, and more care taken to keep them from deterioration, would well pay every one who raises pork either for the market or for his home consumption. No one supposes that we can ever successfully compete with our sister States in more southern latitudes in raising pork for the eastern market, yet we can and ought to raise enough for our own consump-

tion. This, if I am correctly informed is not the case, nor has it ever been since the settlement of the county.

The executive committee were guided principally by the State list, in making out a list of premiums to be awarded. It has been customary with some societies, to offer a reward to the *best hired man*—to the young man who can produce the most satisfactory testimonials for industry, honesty and fidelity, and who has labored for one man at least six months in succession, during the present year. Yea, I would go further—I would give premiums to the three best, of at least four, six, and eight dollars. Custom has almost destroyed the obligation of contracts between the employed and the employer. The first thinks he has a right to leave when he pleases, and the last expects he will go when he likes. A state of society unstable, fluctuating, injurious to all parties concerned. This measure, in the language of presidents who occupy stations somewhat elevated above my own, I cannot too earnestly recommend.

To the ladies who have kindly condescended to share with us in the honors and festivities of the day, I tender not merely my own, but the most humble and hearty thanks of every member of the society. The specimens of their skill, ingenuity and industry, are alike honorable to themselves and to our county. Each successive year will, I trust and believe, add much to the number of articles exhibited and much to the interest and benefits to be derived from the society.

One word of advice. Let no party spirit, no local jealousies, no local feelings, no local animosities—a list of evils which has since my residence among you hung like an incubus on our wealth, prosperity and happiness—ever came in contact with the best interests of the society. Let every member feel and realize that his own interests, his best good is promoted by the prosperity of all. Further, I would remark, let no member, no individual, go away dissatisfied because he has not received the premium. These premiums are all awarded upon the judgment of men who are fallible, like ourselves. We must feel and believe that our committee have acted honestly, faithfully and impartially, and that if they have erred, it was an error of the head and not of the heart. Mutual confidence [illegible] nurished, cherished and maintained. Without it, the best good of the society

cannot be attained. It will droop and languish. If it should continue to exist, it will only have a name to live, while its *vital* energies are dead.

One word more, and I have done. That is the copy of a motto I saw stuck up in the office of the greatest farmer in Western New York, about 40 years since:

> "Is he a good Farmer?"
> Show me his yokes and carts,
> His bars and gates,
> And I will tell you."

Corrunna, Oct. 3, 1850.

St. Joseph County Agricultural Society.

CENTREVILLE, Feb. 18, 1851.

J. C. HOLMES, Esq.:

The citizens of St. Joseph county formed an agricultural society on the 29th of November, 1849, and organized by appointing officers. A constitution and by-laws were adopted, but from the backwardness of farmers in uniting with us we are unable to boast of much headway.

Our annual meeting will be held on the second Tuesday in April, when we are in hopes we shall be able to push it along some. We are determined to hold a fair next fall, and do the best we can. I think we shall finally succeed in our effort to get up a good society.

Respectfully Yours,

GEO. TALBOT, *Secretary*.

Washtenaw County Agricultural and Horticultural Society.

NOVEMBER, 19, 1850.

Agreeably to the appointment of the executive committee, the county fair of Washtenaw was held at the same time and place with the State fair, which had been appointed to be held at Ann Arbor on the 25th, 26th and 27th of September.

A list of the ordinary premiums had been previously published, and these were awarded by the several committees as follows:

LIST OF PREMIUMS.

CATTLE.

Best Durham bull, 3 years old,	F. S. Finley Scio,	$5 00
" " 2 "	W. E. Anderson Pittsfield,	3 00
" yoke working oxen,	J. Kellogg, "	5 00
2d, best do	J. Starkweather, Ypsilanti,	3 00
" " steers 3 years,	do	3 00
" " " 2 "	Philo Parsons Pittsfield,	2 00
Best 2 year old steer,	H. E. De Garmo, Ann Arbor,	2 00
" " " heifer,	Philo Parsons, Pittsfield,	3 00
" " milch cow,	H. E. De Garmo, Ann Arbor,	3 00
Best Durham "	J. W. Van Cleve, Ypsilanti,	5 00
2d " "	David M. Uhl, "	3 00
Best 5 Durham calves,	Wirt Dexter, Dexter,	6 00
" Durham bull calf,	John Brewer, Superior,	1 00
" " heifer, 1 yr.,	J. Freeman, Manchester,	2 00
5 yoke working oxen,	Town of Pittsfield, (S. D. Mc Dowell,)	5 00

HORSES.

Best Stallion 4 yrs. and over,	A. B. Peterson, Dexter,	3 00
2d " "	Wm. Teeple, Salem,	2 00
Best " 3 years,	Isaac Dunn, Ann Arbor,	2 00
2d " " "	A. Gardner, Lodi,	1 00
Best " 2 years,	Samuel Kellogg, Ann	2 00
2d " " "	J. Kellogg, Pittsfield,	1 00

Best span carriage horses,	J. Freeman, Manchester,	$3 00
2d do	C. S. Goodrich, Ann Arbor,	2 00
Best single horse,	Benj. Follett, Ypsilanti,	2 00
" Gelding 2 years,	E. A. Platt, Pittsfield,	2 00
Best gelding, 1 year old,	David Depue, Pitsfield,	2 00
2d do 1 do	I. R. Ames,	1 00

HORSES, *(Draught.)*

Best stallion, 2 years old,	Orrin White, Ann Arbor,	2 00
" span draught,	J. F. Dunn, do	3 00
" colt, 2 years old,	Asa Rice, Ypsilanti,	2 00
" mare and colt,	J. F. Dunn, Ann Arbor,	3 00
2d do do	G. N. B. Renwick, Salem,	2 00

SHEEP, *(Merino.)*

Best merino buck,	Thos. Wood, Saline,	3 00
2d do do	Geo. W. Gale, Superior,	2 00
Best 5 ewes,	Thos. Wood, Saline,	5 00
2d do do	G. W. Gale, Superior,	3 00
Best 6 lambs,	John Brewer, Superior,	5 00
2d do	Thos. L. Spafford, Manchester,	3 00

SHEEP, *(Saxony.)*

Best saxony buck,	D. D. Gillett, Sharon,	3 00
2d do do	D. H. Mills, Manchester,	2 00
Best saxony 5 ewes,	D. D. Gillett, Sharon,	5 00
" 5 lambs, do	do	5 00
2d best 5 lambs,	D. H. Mills, Manchester,	3 00

HOGS.

Best breeding sow over 1 year old,	Wm. Bowers, Sharon,	2 00

MANUFACTURES, OTHER THAN DOMESTIC.

Best 6 dining chairs,	A. Norton, Ann Arbor,	1 00
rocking chair,	Thos. Keal, do	1 00
table, do	do	1 00
barrel flour,	D. D. Sloan, Dexter,	1 00
cook stove, boiler and kettle,	C. S. Goodrich, A. Arbor,	2 00
2d best cook and parlor stove,	E. T. Williams, do	1 00
Best double harness,	P. M. Sage, Ypsilanti,	3 00

FARM IMPLEMENTS.

Best churn,	S. D. McDowell, Pittsfield,	1 00
grain cradle,	I. H. Rogers, Ypsilanti,	1 00

DOMESTIC MANUFACTURES.

Best pair cotton stockings, B. Holmes, Pittsfield,	$1 00
" woolen socks, do do	1 00
piece white flannel, J. G. Leland, Northfield,	2 00
2d best do do John Lowry, Lodi,	1 00
Best rag carpet, D. D. Gillett, Sharon,	2 00
2d best do O. L. Warner, Pittsfield,	1 00
Best piece woolen cloth, C. Cornwell, Pittsfield,	2 00
2d best, do do do	1 00
Best coverlet, B. Holmes, Pittsfield,	2 00
patch-work quilt, Mrs. Mark Norris, Ypsilanti,	2 00
2d best do do Miss Caroline Ticknor, Pittsfield,	1 00
Best pair woolen blankets, J. G. Leland, Northfield,	2 00

BUTTER, CHEESE & HONEY.

Best butter, Orrin White, Ann Arbor,	2 00
2d best butter, B. Holmes, Pittsfield,	1 00
Best cheese, Lorin Moore, York,	2 00
Best 2 boxes of honey, O. L. Warner, Pittsfield,	1 00
" hive with honey, S. D. Noble, Ann Arbor,	2 00

FIELD CROPS.

Best bushel of wheat, J. B. Van Atta, Saline,	1 00
2d do Enoch Eddy, Lodi,	50
12 ears of corn, J. M. Uhl, Ypsilanti,	1 00
12 stalks broom corn, E. A. Platt, Pittsfield,	1 00
Best bushel potatoes, Julius Foster, Scio,	2 00
2d do Enoch Eddy, Lodi,	50
Best bushel of turnips, Philo Parsons, Pittsfield,	1 00

VEGETABLES.

Best 6 beets, O. L. Warner, Pittsfield,	1 00
2d do Henry Compton, Ypsilanti,	50
Best 12 sweet potatoes, Thos. Keal, Ann Arbor,	1 00
2d do L. W. Bodwell, "	50
Best 3 squashes, L. R. Doty, "	1 00
2d do W. E. Anderson, "	1 00
Best 3 pumpkins, Mr. Perkins, York,	1 00

FRUIT.

Quantity of fall apples, C. D. Lay, Ypsilanti,	1 00

Quantity of winter apples, C. D. Lay, Ypsilanti,	$1 00
do pears do do	1 00
Lot of peaches, Robt. S. Barney, Pittsfield,	1 00
FLOWERS.	
Variety (83) cut flowers, Mrs. Mark Norris, Ypsilanti,	1 00
Boquet, Miss Allmandinger, Ann Arbor,	1 00
NEEDLE WORK.	
Best and greatest variety of needle work, not worsted, J. Starkweather, Ypsilanti,	2 00
Best ottoman cover, Mrs. Tyler, Ann Arbor,	2 00
Greatest variety worsted work, Mrs. J. F. & Miss N. L. Rogers, Ann Arbor,	2 00
Work box, Mrs. D. E. Hubbard, Ann Arbor,	1 00

Owing to the magnificence of the State fair, which, for the time being, naturally attracted special attention, the entries in our own fair were by no means so numerous as on the preceding year, and our receipts were consequently less. Yet we are able to pay our premiums, and hope next year to realize a handsome sum.

We have the satisfaction of knowing that quite a large proportion of premiums was awarded to the products of Washtenaw county; and in the line of cattle and sheep we exhibited stock not easily surpassed.

In expectation of hearing the admirable address of Mr. Williams, no arrangements were made for one before the county society.

On the whole, we feel much encouraged, and are ready to believe that we can produce as good grains, fruits, stock, etc., in old Washtenaw as any where else.

J. HOLMES AGNEW,
Sec. Washtenaw Ag. & Hor. Society.

To J. C. HOLMES, Esq.,
Sec'y of State Ag. Society.

APPENDIX,

CONTAINING THE

STATISTICS OF MICHIGAN,

COMPILED FROM THE

CENSUS OF 1850,

TAKEN BY AUTHORITY OF THE UNITED STATES.

Condensed for Publication by the Secretary of State of the State of Michigan, in pursuance of an Act of the Legislature, approved April 7th, 1851.

[No. 122.]

AN ACT to provide for publishing the statistics of this State, taken by authority of the United States in the year eighteen hundred and fifty.

Section 1. *The People of the State of Michigan enact,* That the Secretary of State is hereby authorized and required to cause to be condensed, in proper form for publication, so much of the statistics of this State, taken by authority of the United States in the year eighteen hundred and fifty, as is hereinafter specified, to wit: so much as shows the number of dwelling houses, (designating those in cities,) the number of families, the number of persons, (designating the colored,) the number of deaf and dumb, blind and insane, the number of acres of improved and unimproved land, the aggregate value of real estate, the aggregate value of farming implements and machinery, the number of each class of live stock, and the aggregate value thereof, the number of bushels of each kind of grain, the number of bushels of potatoes and clover seed, the number of pounds of wool, butter, cheese and maple sugar, the value of orchard products, the number of tons of hay, the value of home-made manufactures, the number and kind of mills and manufactories, the motive power, and the value of products.

Sec. 2. And when the statistics shall be condensed as above provided, the Secretary of State shall cause two thousand copies to be printed in pamphlet form; and when published, shall transmit three copies to each organized township in this State—one copy for the use of the supervisor, one copy for the township clerk, and one copy for the township library; and shall also transmit twenty-five copies to the mayor of each city, for the use of the city library.

Sec. 3. The Board of State Auditors shall audit and allow such sums as they may deem proper for clerk hire in preparing the statistics for publication; and the amount certified to be due each individ-

ual shall be paid out of the State treasury on the warrant of the Auditor General.

Sec. 4. This act shall take effect immediately.

Approved April 7, 1851.

In compliance with the provisions of the foregoing act, I have caused the accompanying tables to be compiled from the census returns taken by authority of the Federal Government for the year 1850, and have also appended an abstract table from the returns of 1840, showing, by counties, the population, live stock, produce, mills and their products of the State for that year, for the purpose of enabling a comparison to be readily instituted between the results of the two years.

On examination, it will be seen that we have nearly doubled in population, and much more than doubled in all the elements of real wealth; and when it is remembered that during the first half of the last decade, our State was still laboring under many embarrassments consequent upon the great financial revulsion which operated with such peculiar force upon our infant State, the evidences of our growing and permanent prosperity are very gratifying.

Essentially an agricultural State, and that pursuit forming the base of all others, our progress mainly depends upon its successful prosecution; and the statistics, showing its prosperity, are a good index of the general condition of nearly all our industrial interests.

The aggregate of occupied farms in the State is 34,879; improved acres of the same, 1,930,354. The census of 1840 make no returns under these heads; so no comparison can be instituted. But they do of farm produce and live stock, and the increase exhibited is very great and shows some singular results. It must, however, be remembered, that the returns of live stock are *exclusive* of those in cities and villages, as the agricultural statistics include only those of farms, "the produce of which amounts to one hundred dollars in value." The number of horses has increased ninety per cent.; neat cattle fifty per cent.; sheep *seven hundred and sixty per cent.*, or from 99,618 in 1840 to 756,382 in 1850; while the number of swine has *decreased* nearly *thirty* per cent.

It must be borne in mind that the returns are for the year *ending June 1st*, 1850, and therefore the amounts of farm produce are in reality the productions of 1849.

The wheat crop of that year (1849) is reported by the several marshals to be from one-fourth to one-half short of an average crop, yet we have returned 4,893,141 against 2,157,108 in 1839—an increase of nearly one hundred and twenty-seven per cent. Oats and potatoes show a slight decrease; barley an increase of fifty per cent.; Indian corn one hundred and fifty per cent., and rye three hundred per cent. The wool clip has increased from 153,375 pounds to 2,-007,598 pounds, or more than *thirteen* times greater than it was in 1840. This article, at the present rate of increase will soon rival our great staple—wheat—and not improbably exceed it as an article of export, as it is now well settled that the lower peninsula of our State, both from soil and climate, is remarkably well adapted to the raising of sheep.

The product of the diary has nearly or quite quadrupled. Hay has more than trebled, and home-made manufactures have increased in a like ratio. The number of flouring mills seems not to have increased; and although the returns of each year are defective in many counties, yet it is apparant that the number of barrels of flour made has more than trebled. So with saw-mills—the *number* remains about the same, and the feet of lumber sawed is not given in the returns of 1840; yet the increase must be very large, as according to the returns of 1850, the amount sawed that year exceeds *three hundred millions of feet.*

The value of all kinds of manufactures is estimated at $10,111,488.

The estimated value of the real and personal estate of the whole State, exclusive of Detroit city, the counties of Genesee, Ionia, Lapeer, and some of the lesser counties, is put down at $52,781,977; which sum, in reality, cannot much exceed *one-half* the real value.

The mining statistics were not required to be, and are not embraced in, the regular tables. Deeming that a brief summary of that growing and important branch of industry will be of interest, particularly for future reference, when the immense mineral wealth of the upper peninsula shall be more fully developed, I have appended another table for that purpose, embracing the mining interest in the

whole State. According to the returns, there was engaged in the business of iron and copper mining in the *upper* peninsula, June 1st, 1850, 24 companies, employing 706 hands, with a capital invested of $614,360, the previous year's product of which was 1,507 tons of native copper, valued at $386,960.

In the returns made to this office, the whole of Berrien, and the agricultural and mechanical statistics of Barry counties, were returned in the aggregate, and not by townships, which is the reason that the aggregates only are given in the accompanying tables.

The tables have been prepared with great care, and are believed to be a correct abstract from the returns deposited in this office. The labor required to prepare them for publication has been very great—much greater than was anticipated. And when it is remembered that nearly every item in the tables is itself an aggregate of many columns, it will not be thought remarkable should some errors be discovered. Some discrepancies like the following appear: St. Clair township, St. Clair county, page 144, 1 flouring mill reported; capital invested, $1000; barrels of flour made, 35,000; value of, $17,-500. It evidently should be 3,500 barrels instead of 35,000; yet such is the marshal's return. In some instances, where the error was evident and the intention manifest, we have made the correction when it was discovered before being put to press.

C. H. TAYLOR,
Secretary of State.

ERRATA.

Page 21, cash value of farms in Marengo, "$47,200," should be "$231,870."
" " total cash value, "$2,800,256," should be "$2,984,926."
" 39, acres improved in Kalamo is "711," should be "1,711."
" " total is "26,476," should be "27,476."
" 40, value of live stock in Eaton Rapids is "$30,450," should be "$22,450."
" " total is "$124,416," should be "$116,416."

STATISTICS

OF THE

STATE OF MICHIGAN,

COMPILED FROM THE CENSUS OF THE

UNITED STATES,

FOR THE YEAR 1850.

ALLEGAN COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Allegan,	145		144	752				1	$190,810
Dorr,	20		20	124					13,700
Fillmore,	107		120	527					48,475
Ganges,	45		50	246				1	37,440
Gunplain,	118		124	587	5			3	136,910
Leighton,	22		22	112		1			10,850
Manlius,	14		14	82					20,400
Martin,	62		64	329					71,000
Monterey,	42		43	238		2		1	42,530
Newark,	40		47	246		1			34,350
Otsego,	158		166	818			1		151,675
Pine Plains,	8		8	34					2,800
Trowbridge,	65		68	313					58,900
Watson,	58		58	313					38,350
Wayland,	92		96	406					40,195
	996		1,044	5,127	5	4	1	6	$898,385

ALLEGAN COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
28	1,306	3,321	$55,850	$2,895	41		72	52	103
6	176	664	7,500	580	8		29	12	35
14	307	1,474	14,790	618	1		35	19	38
13	451	1,329	16,500	905	8		42	26	52
55	3,995	3,858	94,700	4,595	96		166	94	269
5	118	437	5,100	270	4		11	10	24
6	292	1,027	10,800	305	3		15	16	20
34	1,497	3,114	52,870	3,410	35		85	70	103
22	939	1,098	28,700	1,397	15		46	46	90
4	111	1,920	6,750	230	4		12	8	17
28	1,110	2,061	39,400	3,395	50		90	56	117
not	report'd								
23	918	2,302	38,300	2,375	31		72	40	95
19	644	1,095	20,200	1,560	15		51	43	74
13	555	1,315	13,700	1,025	9		36	26	70
270	12,419	25,015	$405,160	23,560	320		762	518	1107

ALLEGAN COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats bushels of.
Allegan,	365	128	$7,192	1,837	60	3,445	1,574
Dorr,	96	33	1,877	275		1,450	490
Fillmore,		58	1,556	124		2,365	201
Ganges,	139	94	2.876	449	62	2 600	405
Gunplain,	2,050	282	17,161	8,286	669	14.595	4.456
Leighton,	33	20	1,164	426	40	670	100
Manlius,	39	42	1,234	72		750	200
Martin,	482	257	8,035	5,051	120	6.000	3,105
Monterey,	275	92	4,642	2,151		3,210	1,635
Newark,		10	885			330	40
Otsego,	345	187	8,202	2,072	640	7,065	1,280
Pine Plains,							
Trowbridge,	306	129	6,052	1,349		4 705	1,120
Watson,	213	116	4.084	1,811		3 270	1.340
Wayland,	82	55	2 969	1 ,213	40	1,850	1,165
	4,425	1,503	67,929	25,116	1631	52,305	16,711

ALLEGAN COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
135	110	4,520	1,112	365	5,850	550	299	1	11,350
15	40	975	290	20	2,300	300	155		6,200
	234	2,870			2,900		23		440
95	155	2,480	414	215	3,210	250	95		3,950
40	517	9,150	5,901	500	12,750	2,620	1,200	40	12,160
20		410	107	30	1,300		62		2,000
100	118	1,650	102	105	1,520		122	5	400
124	120	4,430	1,363	80	8,320	420	238	15	13,610
312	100	3,370	890	135	3,830		192	6	6,960
	25	450		60	850		41	2	300
5	60	4,675	1,134	250	7,630	1,500	322	8	11,000
30	80	4,125	929	570	5,770	400	283	11	7,800
50	350	3,175	662	252	4,850	600	176	8	13,950
80	117	1,435	250		2,980	250	104	1	1,850
1006	2026	43,721	13,154	2,582	64,060	6,890	3,312	97	91,970

ALLEGAN COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
Allegan,	150	1	1		6,000	2,400	10,830	6	6		14,000
Dorr,	80										
Fillmore,											
Ganges,	200							1	1		800
Gunplain,	2,572	1	1		3,000	900	3,600	2	2		2,000
Leighton,	130										
Manlius,								1	1		3,000
Martin,								1	1		700
Monterey,	200							1	1		1,000
Newark,	555							3	1	2	24,700
Otsego,	360	1	1		8,000	1,300	5,200	4	4		12,600
P. Plains,	not				report	ed.					
T'wbri'ge,	125							2	2		3,800
Watson,	320										
Wayland,	75							1		1	2,000
	4,767	3	3		17,000	4,600	19,600	22	19	3	64,600

ALLEGAN COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
4,250,000	$22,850	$28,500	37		$47,480	$116,092	$232,184
						26,801	53,602
						16,648	33,296
125,000	750	19,200	18		25,150	56,083	112,166
550,000	3,300	5,000	4		7,600	69,915	139,820
						12,844	25,688
500,000	2,500	4,000	5		4,000	36,197	72,394
150,000	900	700	1		900	46,836	93,672
100,000	500	1,000	1		500	64,785	129,570
4,720,000	28,200	28,000	39		40,550	48,549	97,098
1,750,000	12,000	21,700	18	2	24,000	82,904	165,808
350,000	2,800	3,800	4		2,800	47,401	94,802
						20,001	40,002
400,000	2,800	2,000	2		2,800	29,272	58,544
12,895,000	$76,700	$113,900	129	2	155,780	$674,328	$1,348,646

BARRY COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane	
Assyria,	78		78	336					$58,150
Barry,	98		99	478	1				81,392
Baltimore,	16		16	90					3,150
Castleton,	67		67	324					27,395
Carlton,	65		65	272		1		1	25,665
Hope,	19		20	99	7				6,200
Hastings,	116		121	554					89,540
Irving,	41		42	214					36,450
Jownstown,	86		86	451					73,848
Maple Grove,	35		35	153					24,100
Orangeville,	65		65	364					52,930
Prairieville,	115		120	555				2	106,744
Rutland,	36		37	177		1	2		24,865
Thornapple,	68		69	336					41,290
Woodland,	83		83	377					40,110
Yankee Springs,	52		52	292					48,245
	1,040		1,055	5,072	8	2	2	3	$740,074

BERRIEN COUNTY.

	2,127		2,156	11,417	215	4	1	8	2,180,506

BARRY COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
750	24,752	63,057	$622,293	28.439	618		502	451	1,816

BERRIEN COUNTY—*Continued.*

694	34,282	57,9[illegible]6	1,049,746	59,486	1609	2	1912	847	2368

BARRY COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats, bushels of.
Assyria,							
Barry,							
Baltimore,							
Castleton,							
Carlton,							
Hope,							
Hastings,							
Irving,							
Johnstown,							
Maple Grove,							
Orangeville,							
Prairieville,							
Rutland,							
Thornapple,							
Woodland,							
Yankee Springs,							
	8,486	4,312	121,549	79,871	929	111609	40,442

BERRIEN COUNTY.

	11302	7,199	161,800	88,263	144	227650	74,175

BARRY COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
1572	3021	51,837	21,959	190	110966	13,752	6,449	91	94,498

BERRIEN COUNTY—*Continued.*

260	3249	60,215	28,633	6,681	123346	12531	6186	87	51,043

BARRY COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam	
Assyria,											
Barry,											
Baltimore,											
Castleton,											
Carlton,											
Hope,											
Hastings,											
Irving,											
Johnst'wn.											
M. Grove.											
Orang'v'le											
Prairiev'le											
Rutland,											
Th'apple,											
Woodla'd,											
Y.Springs,											
	5,565	2	2		6,800	4,200	16,200	17	14	3	22,875

BERRIEN COUNTY—*Continued.*

	5232	5	5		52000	37000	141000	24	22	2	43,360

BARRY COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invested in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
5,625,000	$29,300	$33,975	63		$65,300	$369,590	$492,786

BERRIEN COUNTY—*Continued.*

7,790,000	50,000	144,760	187½		325,565	832,454	2,497,362

BRANCH COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of Inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Algansee,	116		119	609				1	$88,150
Batavia,	133		136	724	1				110,200
Bethel,	134		135	679				1	93,825
Bronson,	126		128	713					111,300
Butler,	122		125	611					79,095
California,	81		82	473					69,975
Coldwater,	379		409	2,166	12				517,288
Girard,	174		177	934					178,200
Gilead,	96		98	503					82,935
Kinderhook,	68		70	356					51,300
Mattison,	87		87	475					69,080
Noble,	82		82	451					68,160
Ovid,	143		148	710					97,345
Quincy,	194		198	1,111					191,760
Sherwood,	128		129	686					126,245
Union,	337		346	1,271	1			1	161,625
	2,400		2,469	12,472	14			3	$2,096,483

BRANCH COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
85	3,116	5,171	$74,450	4,557	94		200	118	293
105	4,741	6,706	111,750	5,707	138	2	255	126	331
96	3,453	5,673	71,205	3,459	80		184	138	260
71	3,203	5,670	83,280	3,485	95		178	86	262
81	2,872	5,781	77,295	3,401	73		188	120	233
58	3,179	3,058	60,650	3,112	76		139	88	191
136	6,134	6,413	224,500	7,473	193	2	221	88	199
140	6,996	7,011	175,650	7,565	197		331	148	397
64	3,629	2,789	70,300	3,028	87	1	148	80	258
51	2,768	3,392	53,450	3,167	53		106	70	148
64	2,747	5,165	66,900	3,021	60		150	109	217
63	3,318	3,903	63,790	3,145	86		148	72	226
103	2,257	5,857	67,205	4,724	98		208	156	228
133	6,213	7,996	171,200	6,949	183		335	207	460
100	5,633	6,868	120,895	5,140	101		226	116	209
113	3,882	6,433	116,850	6,608	112		259	14[illegible]	442
1463	64,141	87,886	1,609,370	74,541	1726	5	3276	1867	4354

BRANCH COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls	Oats, bushels of.
Algansee,	1125	410	$15,634	6,333		13,478	6,318
Batavia,	1489	540	19,208	12.669		20,941	11.500
Bethel,	1272	476	12,882	6,6[illegible]1	51	16,265	4.630
Bronson,	1333	443	14,664	5.818	240	17,153	7,[illegible]90
Butler,	1303	372	13,671	6,636		11,200	5,366
California,	1093	286	11,585	8,813	95	10,010	4,446
Coldwater,	2043	365	17,967	11,051		80,725	8,799
Girard,	2834	547	26,913	19 921		21.770	13,146
Gilead,	793	377	12,286	13,471		15,600	9.122
Kinderhook,	479	249	8,536	6,937		9,350	2,930
Mattison,	861	371	11,903	7.276	83	9,430	4,429
Noble,	841	298	12,519	7,550	325	13 060	4 516
Ovid,	860	435	14 233	8,226	80	13,447	6,854
Quincy,	2230	547	26,840	12 888		25,845	15 311
Sherwood,	1405	479	17,181	13,085	205	25,475	5,057
Union,	1903	635	18,482	8,387		19,521	8 660
	21864	6,830	254,504	155742	1079	323,270	118474

BRANCH COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
12	592	5,314	2,760	251	2,005	2,110	668		19,102
	16.08	10,426	3,459	112	20 902	1,240	888	3	16 840
100	628	6,255	3,003	243	15,155	910	585	5	9,739
314	778	5,870	3,187	422	13,462	300	619		4,870
320	735	6,645	3,634	245	14,625	2,110	483	22	17,485
	997	3,773	3,012	245	12,298	1,050	619		3,165
4	1,096	12 403	7,006	186	28,640	2,875	1,109	41	15,285
132	1,494	12 662	7,403	382	26,340	1,895	845		18.435
314	514	3,593	2,891	267	11.220	700	284		4,125
64	1,156	3,824	1,103	193	9,025	90	508	4	635
50	526	4,447	2,138	216	11,986	870	638	14	11,910
220	601	3,827	2,235	227	11,050	595	537	8	3 0
	917	7,805	2,139	314	15,322	1,754	609		10.649
185	1,639	12,25.	6,037	505	29,983	4,300	992		17,430
510	971	6,849	3,911	153	16.715	2.080	602	92	14,000
55	1,019	7,164	4,407	345	18,741	930	913		43,544
2280	15271	113108	58,325	4306	257469	23,809	10899	189	207,584

BRANCH COUNTY—*Continued.*

TOWN'S.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bls. flour made.	Value of.		Water.	Steam.	
Algansee,	$943							1	1		$1,000
Batavia,	1,462							1	1		1,500
Bethel,	847							1	1		3,000
Bronson,	503							2	1	1	6,000
Butler,	1,110							1		1	3,000
California,	783										
Coldw'ter,	7 0	3	2	1	31,000	19,800	75,580	6	4	2	14,500
Girard,	1,368							1	1		2.000
Gilead,	271							1	1		2,000
Kinderh'k,	501							1	1		500
Mattison,	818										
Noble,	1,076							1	1		800
Ovid,	894							3	3		8,000
Quincy,	1,194							1	1		2,000
Sherwood,	712										
Union,	1,111	2	2		16,300	14,000	27,000	1	1		1.400
	14343	5	4	1	47,300	33,800	102580	21	17	4	45,700

BRANCH COUNTY—*Continued.*

Saw Mills.		A regate of all kinds of manuf's, mills included.				Estimated value of re'l and personale state.	
Annual product.			Hands empl'd				
Feet of lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	male	Value of annual products.	By assessors.	By Assistant Marshals.
300,000	1,800	1,000	2		$1 800	32,645	94,689
300,000	1,800	1,800	3		2,600	53,632	151,804
300,000	1,800	3,000	2		1,800	40,685	90 862
1,000.000	7.000	6,000	5		7,000	61,246	96,811
200,000	1,500	3,000	2		1,500	29,341	94,147
						21,463	71.236
1,840,000	11,480	63,250	62		141.210	133,235	263,834
500,000	3.000	2,800	3		3,600	6 ,417	217,460
250,000	1,5 0	2,100	3		2,100	33,403	82,620
200,000	1,200	500	2		1,200	22,750	64.959
						38,134	81.924
80,000	560	800	1		560	22,644	84,031
750,000	4,500	8.400	5		5,500	34.991	106,947
250,000	1,500	2,000	2		1,500	52,076	206,177
						48,538	146.070
250,000	1,625	46,900	48		68,725	63,581	135,725
6,220,000	39,265	141,550	140		239,095	750,781	1,989,296

CALHOUN COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Albion,	449		460	1,666	5			1	521,093
Athens,	98		98	532			1		77,510
Battle Creek,	346		346	1,897	34				464,395
Bedford,	117		124	747		1			157,145
Burlington,	145		150	811	3				139,400
Clarence,	94		97	485			1	1	55,330
Clarendon,	227		237	669			1		116,585
Convis,	113		113	621					98,200
Eckford,	130		131	715	6				182,675
Emmett,	283		295	1,582	58	1		1	381,290
Fredonia,	108		110	623	1			1	148,950
Homer,	181		184	929					249,180
Lee,	68		68	381	16				34,200
Le Roy,	154		158	878					132,035
Marengo,	165		166	1,013	1		3		320,290
Marshall,	498		515	2,823	69				433,535
Newton,	103		104	569					93,810
Pennfield,	111		112	598	1	2			104,000
Sheridan,	168		168	979	1			1	200,677
Tekonsha,	126		126	651	1	1			127,180
	3,684		3,762	19,169	196	5	6	5	4,037,480

CALHOUN COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
109	9,573	8,666	$238.617	$9,246	256		521	277	411
79	4,458	5,095	82,700	4,949	108		198	131	197
152	10,640	13,327	284 405	11,624	349		514	327	511
93	4,716	7,246	147,640	5,651	137		246	192	251
82	5,145	5,731	106,050	5,025	114		193	143	268
40	1,665	2,845	37.075	1.955	39		173	145	228
66	3,373	4,175	78,860	3,760	129		239	130	233
95	5,115	7,525	112 235	4,550	129		281	220	298
113	8,430	8,303	212.072	10,130	182		311	185	371
147	9.945	9.653	249,840	11,640	280		519	310	475
84	5,2[illegible]6	7,235	143 050	6,305	121	1	294	148	271
73	6,039	6,972	185.569	5,607	169		332	138	304
16	825	821	17,000	711	26		139	111	121
129	6,274	6.679	134.393	6,616	159	2	292	226	330
107	8,616	8,41[illegible]	47 200	8,935	236		429	195	462
117	9,493	9,348	225.710	7,993	373		620	209	506
82	4 648	5,763	92 800	6,325	107		219	178	259
77	4,881	6,535	109,280	5,240	116		251	214	275
80	5 982	6,597	147.010	7,620	176		362	177	300
93	4,191	7,328	118,750	5.125	119		233	122	286
1834	119,255	138,262	2,800,256	129007	3325	3	6366	3778	6,357

CALHOUN COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats, bushels of.
Albion,	4,510	704	42,565	40.15	360	19 675	13,915
Athens,	1,246	498	16,605	14.144	50	17,440	8.797
Battle Creek,	4.474	821	48,251	26,6 0	120	47 825	14,638
Bedford,	1,429	441	20,645	12,5 9	165	17.27	3 334
Burlington,	1,394	452	18,290	12.874	40	14 950	9,465
Clarence,	527	293	9,847	4,739	195	4.745	2,279
Clarendon,	1,685	334	15,926	10,755	270	7,560	5.065
Convis,	1,895	609	20,566	18,946		13,715	4.8 9
Eckford,	3 702	521	27,611	37.889	175	17,140	17 195
Emmett,	3 918	886	37,844	32.848	1084	34,320	11,186
Fredonia,	3 090	371	21,236	17.038		16,680	8,822
Homer,	4,052	470	30,368	18,627		9,590	9 560
Lee.	241	164	7,965	2,822		1,390	1,088
Le Roy,	1 795	626	24.476	15,776	94	15,757	7,849
Marengo,	5,669	1,010	35,510	32,694	470	27,288	16.734
Marshall,	3,67	1,286	43,818	29,493	286	18.116	11.205
Newton,	1,433	386	19,865	14.965		10.145	4 635
Pennfield,	1,577	547	19,018	15,203	191	13,810	4.954
Sheridan,	2,250	512	28,238	18.479		11.957	6,005
Tekonsha,	1.406	433	18,573	14,146	65	18,830	3,160
	49963	11364	507,217	390774	3565	334209	164,765

CALHOUN COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
2,330	1,849	8,699	11,[illegible]97	497	31,735	3,126	723	75	
403	883	5,420	3,175	115	11,365	3,189	593	6	8,645
58	1,273	10,967	11,196	449	19,932	2 913	1,987	83	840
300	988	8,020	3,330	112	13,[illegible]20	1 190	870	23	150
40	930	6,060	3,825	2[illegible]0	12,520	830	583		9,970
566	487	3,488	1,289	97	9 499	1,095	897		1,444
448	378	3,693	4,197	294	12 565	990	607	16	1,450
410	1,462	6,556	4,607	24	20,180	2.620	934	7	
670	785	8,570	9,7[illegible]8	247	22 735	3,550	956	38	
440	1,259	14,099	9,875	215	25,694	2.384	1,646	50	522
910	980	6,720	7,816	560	17 570	2,900	957	3	
226	1,854	4,675	11,513	636	23 545	2,310	847	89	
30	423	1,120	661	214	6,491	240	114	8	2,370
4[illegible]1	1.363	7,591	4,119	175	15.295	1,200	955	34	6,670
2,[illegible]28	1,307	18,669	13,050	340	32,770	4,650	1,553	130	
1,474	1,570	12,932	9,035	180	17.850	1,290	1,122	5	
17	1.644	8,707	3,750	138	14,720	650	860		
200	414	6,590	3,724	272	17,295	4,600	863	23	
1,223	427	6,274	6,033	200	18,119	1,691	816	40	
565	1,502	6,660	3,789	452	16,675	1,160	738	76	7,735
12819	21778	155510	126589	5427	359675	42578	18623	706	39,796

CALHOUN COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
Albion		2	2		43,000	14,100	55,000	1	1		$1,000
Athens,	320										
B. Creek,	847	2	2		29,000	12,500	50,000				
Bedford,	312										
Burlington								1	1		2,500
Clarence,	641							1		1	6,500
Clarendon,	658							1	1		3,000
Convis,	638										
Eckford,											
Emmett,	455										
Fredonia,											
Homer,	705	2	2		53,900	8,500	34,000	1	1		2,000
Lee,	78										
Le Roy,	767										
Marengo,	799	2	1		9,000	5,000	15,250				
Marshall,	203	3	3		30,000	21,300	85,000	1	1		2,000
Newton,											
Pennfield,	390										
Sheridan,	128										
Tekonsha,								1	1		2,000
	6,941										

CALHOUN COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
270,000	2,500	89 990	61		121,700	112.809	614,115
				11		40,541	101,352
		69,900	96		141,964	157,880	294.700
						61,513	153,782
500,000	3,000	2,650	4		3,800	51,294	102,588
1,000.000	7.000	6,500	7		7,000	30,209	70,643
600,000	4,000	3,000	3		4,000	56.246	131,219
						48,225	96,450
						73.844	147,688
						116.319	288,796
						74,039	148,078
60,000	500	55,900	5		34,500	97,994	302,789
						34.930	41,749
						46.221	115,092
		9,000	3		15,250	108.477	200,437
300,000	2,500	71,200	103		154,345	266,490	532,980
						44,989	89.978
						61,986	123,952
						50,712	226,680
400,000	2,400	2,000	2		2,400	47.767	95,534
						1,582,485	3,878,602

CASS COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind	Insane.	
Calvin,	108		108	624	158				$85,350
Howard,	134		134	766	72	1		1	109,550
Jefferson,	147		147	887	5			1	208,170
La Grange,	236		237	1,327	15				128,560
Mason,	109		110	570					92,125
Marcellus,	42		42	222					26,950
Milton,	97		99	610					112,460
Newburgh,	70		71	388		1			61,090
Ontwa,	144		148	781					172,315
Penn,	124		124	698	29				155,020
Porter,	212		212	1,259	105	2			244,379
Pokagon,	180		184	99					199,280
Silver Creek,	91		91	491	3				73,660
Volinia,	106		109	607				1	125,975
Wayne,	115		115	652				2	126,920
	1,915		1,931	10,906	387	4		5	$1,924,804

CASS COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
41	2,252	4,052	$58,600	$2,715	89		90	41	126
78	3,927	6,707	106,500	7,270	163		198	86	149
96	7,320	8,383	151,051	6,855	257		278	98	284
72	5,029	6,883	139 300	6 541	153		236	67	213
63	3,691	3,032	84,250	4,470	90		164	115	218
21	671	2,064	18,800	1,180	18		41	23	45
67	4,825	3,396	100,800	4,565	170		184	52	268
39	1,928	4,036	46,100	3,08	53		90	40	133
61	5,044	3,748	96,650	5,000	140		190	50	147
57	4,231	6,534	136,300	6,230	215		180	49	207
123	6,564	9,505	161,850	8,990	204		323	184	443
71	5,565	7,942	145,700	7,395	201		231	73	301
45	1,791	3,516	45 200	3,046	68		104	40	111
45	3,094	4,615	99 600	4,450	114		138	60	134
72	4 063	6,107	112,000	5,895	130		170	68	168
952	59,998	80,520	1,502,701	77,682	2065		2617	1046	2,947

CASS COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls	Oats, bushels of.
Calvin,	553	286	$8,482	6.505		14,500	1,965
Howard,	1,244	592	15,870	8 758	60	25,065	6,170
Jefferson,	1,496	1,121	23,345	23 383		45,120	9,170
La Grange,	581	787	17,545	10,950		43,950	13,875
Mason.	757	480	11,863	10,321	20	18,250	5.555
Marcellus,	121	149	2,660	1.657		4,185	785
Milton.	824	683	13,881	15,719		43,520	12.885
Newburgh,	812	299	7,403	4,249		10,400	2.285
Ontwa,	1,420	469	12,377	14,227		32,250	11.830
Penn,	3,278	719	17,675	9,245		40,500	11,320
Porter,	1.973	673	26,160	18,196		41 230	9,245
Pokagon,	1,668	754	20,041	11,245	46	40,400	13.235
Silver Creek,	652	374	8 280	4 130		14,050	4,545
Volinia,	1,155	554	12,050	9,550		18 500	8 955
Wayne,	1,136	458	14,630	11,862		30 820	10,180
	17670	8398	212,262	159997	126	422,740	122000

CASS COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
	74	1,360	1,229	850	6,785	400	51	10	14.805
520	215	6,905	2.799	335	15,560	200	215	29	1.850
40	482	6,225	5,143		21,790	2,035	248	10	5,120
	575	4.145	4 057	460	17,310	1,750	492	59	6 975
	190	5,355	2.218		11,750	2,160	240	41	9,495
		960	279	15	3.150		38		620
	215	5,545	2,586	160	3.930	1.800	170	15	
	221	2,840	1,825	235	7,450	575	140		6,775
150	385	5,280	3.343	50	11,475	5,410	302	96	800
5	495	2,465	6,480	325	14,560	200	591	3	22,960
40	424	6,165	5,706	395	24,950	6,470	653	17	6.670
400	575	5.145	4,826	195	14,925	1,100	422	20	5.890
	255	3,990	1,770		8,170		8		8,050
90	110	3,140	2,971	105	9,910		98		15,090
230	180	5,105	3 111	200	13 500	600	185		2,400
1475	4396	64,625	48,343	3355	185215	22,700	3853	300	107,500

CASS COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
Calvin,	778	1	1		$1,500	1,800	$5,400				
Howard,	410							1	1		
Jefferson,	1120										$1,000
La Grange	630	2	2		12,000	3,200	9,800	1	1		
Mason,	1015										2,000
Marcellus,	25										
Milton,	20										
Newb'rgh,	358										
Ontwa,	300	1	1		4,000	3,500	10,500	1	1		1,000
Penn,	288							2	2		3,000
Porter,	1285							1	1		1,000
Pokagon,	555	1	1		3,500	200	700	1	1		500
S. Creek,	235							2	1		3,300
Volinia,	241							2	2	1	2,000
Wayne,	207										
	7,467	5	5		21,000	8,700	26,400	11	10	1	13,800

CASS COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.		Cap'l invested in re'l & personal estate in the business.	Hands empl'd		Value of annual products.	By assessors.	By assistant marshals.
Feet of Lumber sawed.	Value of.		Males.	Females.			
		$1,500	1		$5,520	$42,753	$42,753
150,000	$900	1,000	1		900	56,417	56,417
						81,336	81,336
556,000	2,740	18,300	18		21,555	101,788	101,788
						29,439	29,439
						23,099	23,099
						53,909	53,909
						26,656	26,656
400,000	2,000	5,000	3		12,500	65,926	65,926
330,000	1,980	3,000	3		1,980	68,374	68,374
100,000	600	1,000	2		600	65,771	65,771
106,000	530	4,000	3		1,230	79,721	79,721
440,000	2,640	3,300	8		2,640	34,998	34,998
250,000	1,600	2,000	2		1,600	50,011	50,011
		2,000	2		1,200	46,288	46,288
2,332,000	$12,990	$41,100	43		$49,725	$826,486	$826,486

CLINTON COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of Inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Bath,	43		43	222					$20,000
Bengal,	28		28	143					19,140
Bingham,	32		32	185					14,525
Dallas,	37		37	185					27,650
De Witt,	129		129	706				1	106,350
Duplain,	75		76	419					56,065
Eagle,	97		97	521			1		76,850
Essex,	77		77	410	1				47,605
Greenbush,	63		63	318					24,623
Lebanon,	37		37	192					25,470
Olive,	43		45	228					31,315
Ovid,	32		32	172					24,625
Riley,	40		40	191					22,350
Victor,	46		47	277					31, 35
Watertown,	60		60	315	1				37,200
Westphalia,	108		108	618					62,502
	947		951	5,102	2		1	1	$627,705

CHIPPEWA COUNTY.

St. de Ste Marie,	187		187	898	15				$101,930

CLINTON COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
29	1,306	2,081	$20,200	$1,120	28		79	54	98
22	689	2,411	19,250	1,305	24		70	40	90
21	451	1,640	11,800	1,210	20		48	24	67
31	1,088	1,810	24,400	1,304	23		79	52	128
70	2,978	5,169	83,360	3,286	79		172	153	199
49	1,338	3,609	27,850	1,757	40		117	71	149
63	2,215	5,107	71,430	3,003	81		153	82	242
54	1,826	5,404	52,830	3,081	44		137	97	229
37	920	2,587	22,170	1,195	23		76	42	100
18	852	1,642	23,030	1,827	16		32	41	63
32	1,200	2,462	26,700	1,335	35		82	58	116
30	1,058	2,437	21,300	855	22		62	46	79
26	858	1,876	22,570	1,890	26		60	49	70
41	1,400	3,196	28,910	1,380	31		105	70	112
43	1,369	2,275	34,200	1,607	23		106	76	131
86	2,277	5,321	59,835	5,123	13		174	170	210
652	21,825	49,327	$549,835	$31,278	528		1552	1125	2083

CHIPPEWA, SCHOOLCRAFT, HOUGHTON, ONTONAGON AND MARQUETTE.

48	838	12,232	52,600	4,082	88	7	71	98	53

CLINTON COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats bushels of.
Bath,	463	241	$5,320	3,810	100	2,565	1,905
Bengal,	53	193	4,707	966		2,790	1,175
Bingham,	66	131	3,165	535		1,831	715
Dallas,	203	240	5,364	3,263		2,075	1,375
De Witt,	903	464	13,867	8,110	13	8,331	9,164
Duplain,	256	319	7,365	3,501		4,000	2,191
Eagle,	786	562	11,375	4,438	30	6,630	4,690
Essex,	300	652	11,018	4,696		13,305	1,446
Greenbush,	102	190	4,520	1,800	20	2,650	720
Lebanon,	190	175	3,593	3,006		2,095	1,380
Olive,	281	208	6,295	1,595		1,385	2,707
Ovid,	132	153	4,085	2,721		2,215	1,280
Riley,	87	191	4,247	1,277		2,660	2,258
Victor,	340	234	6,450	4,075	124	2,675	2,050
Watertown,	553	226	6,890	3,401		4,629	3,600
Westphalia,	370	609	10,410	7,103	41	5,131	2,304
	5,085	4,788	108,671	54,297	328	64,967	38,960

CHIPPEWA, SCHOOLCRAFT, HOUGHTON, ONTONAGON AND MARQUETTE—*Continued.*

	19	111	15,620			30	1,040

CLINTON COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
	375	1,725	1,107		5,270	810	417		1,280
	192	1,260	208	40	7,855		188		5,787
42	338	1,200	315		4,450	21	197	1	4,740
	338	1,613	783	77	7,530	250	285		4,431
80	577	5,655	2,177	55	14.573	1,046	662	4	4,925
	563	2,785	803	110	9,405	395	253	1	15,645
	1051	3,658	2,072		14,725	730	745	4	16,185
30	1741	5,547	831		13,405		250	5	9,390
	242	1,880	387		6,630	685	157	2	9,115
	287	1,580	631	25	3,300		34		4,260
	630	1,370	923	3	7,355	520	381	8	8,135
	515	825	380	15	5,210	400	319	3	7,815
9	116	1,542	360		5,520	200	231		8,883
	495	1,980	948	5	7,305	880	410	4	2,310
	165	2,666	1,652		10,385		199		7,742
	501	5,714	1,061	7	12,695		285		14,381
161	8126	41,000	14,638	337	135613	5,936	5,013	32	125,024

CHIPPEWA, SCHOOLCRAFT, HOUGHTON, ONTONAGON AND MARQUETTE—*Continued.*

		8,200					366		2,000

CLINTON COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
Bath,	$280										
Bengal,	323										
Bingham,	230										
Dallas,	454							1	1		$1,000
De Witt,	961	1	1		$2,000	5,000	$25000	1	1		1,000
Duplain,	220	1	1		5,000	2,000	8,000	2	2		6,000
Eagle,	1,063							1	1		1,000
Essex,	959										
Gre'nb'sh,	400										
Lebanon,	379										
Olive,	565										
Ovid,	155										
Riley,	217										
Victor,	450										
Watert'wn	320							1	1		1,000
W'stph'lia	785										
	7,761	2	2		$7,000	7,000	33,000	6	6		10,000

CHIPPEWA, SCHOOLCRAFT, HOUGHTON, ONTONAGON AND MARQUETTE—*Continued.*

								3	3		

CLINTON COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invested in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
						$18,656	$18,656
						23,227	23,227
						22,215	22,215
80,000	$560	$2,000	3		$1,810	30,937	30,937
250,000	1,750	5,800	10	1	38,850	65,217	65,217
800,000	4,500	11,200	7½		13,640	39,102	39,102
200,000	1,200	1,175	4	1	3,600	47,697	47,697
						48,571	48,571
						16,022	16,022
						29,040	29,040
						33,327	33,327
						28,259	28,259
						23,527	23,527
						29,579	29,579
200,000	1,000	1,000	1		1,000	47,136	47,136
						26,998	26,998
1,530,000	$9,010	$21,175	25½	2	$58,900	$529,510	$529,510

CHIPPEWA, SCHOOLCRAFT, HOUGHTON, ONTONAGON AND MARQUTETE—*Continued.*

850,000	$8,500	$674,960	822		395,460	$150,312	$150,312

EATON COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Bellevue,	130		132	769					$104,141
Benton,	68		71	344					44,000
Brookfield,	50		50	255				1	22,790
Carmel,	105		106	567	1				96,015
Chester,	67		71	380		2			49,360
Delta,	45		49	242					42,920
Eaton,	114		114	539					80,660
Eaton Rapids,	289		291	1,525		2			265,368
Kalamo,	78		79	429					45,330
Oneida,	90		93	492	2				72,560
Roxand,	64		67	353			1		34,950
Sunfield,	26		27	122					15,350
Vermontville,	58		60	324					61,585
Walton,	88		88	464					69,403
Windsor,	53		53	253					47,060
	1,325		1,351	7,058	3	4	1	1	$1,051,492

EATON COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
67	2,674	5,622	$59,900	$4,213	74	1	160	139	190
45	1,240	3,082	37,800	2,405	40		94	60	140
23	700	1,823	18,600	1,640	14		49	37	50
60	1,884	4,350	53 900	2,948	52		139	102	221
40	1,339	3,901	39,500	2,175	52		121	74	152
17	663	1,027	19,100	1.045	15		46	26	93
64	2.404	4,155	65,400	4.095	61		135	92	287
146	6,953	9 273	166,060	10,955	149		318	283	378
56	711	4,074	41,490	2,955	48		142	89	146
57	1,983	5,004	58 560	2,680	42		156	88	200
31	1,119	2,705	24,550	1,435	34		81	56	119
20	559	1,601	15,200	1.217	13		52	44	71
41	1,575	3,582	46,523	2.788	35		176	92	275
52	1,350	3,445	38,670	2,725	47		118	76	155
28	1,322	2,118	30,100	1,875	36		71	30	86
747	26,476	55,762	$715,352	45,151	712	1	1858	1288	2,563

EATON COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls.	Oats, bushels of.
Bellevue,	1,333	362	$10,670	4,973	74	6,620	2,878
Benton,	443	270	6,236	2,114		4,835	1,926
Brookfield,	139	125	2,371	1,305	138	1,885	1,334
Carmel,	526	238	8,772	3,409	57	5,043	3,518
Chester,	410	263	7,533	1,622	30	3,825	2,121
Delta,	221	126	3,139	581		1,790	1,600
Eaton,	663	360	9,171	5,847		6,536	4,034
Eaton Rapids,	1,929	696	30,450	16,768	270	15,599	11,181
Kalamo,	390	314	7,322	3,007		4,435	2,411
Oneida,	675	311	8,273	3,344	6	4,907	3,855
Roxand,	349	215	5,838	955	60	2,845	1,793
Sunfield,	292	90	3,233	765	20	1,182	968
Vermontville,	764	280	9,816	1,695	12	5,160	1,884
Walton,	443	235	6,703	3,023		1,233	2,717
Windsor,	280	170	4,889	1,422		3,735	2,070
	8,857	4,055	124,416	50,830	667	69,630	44,290

EATON COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
166	430	4,992	2,972	284	10,242	2,307	895	15	15,078
	55	2,796	1,357		9,538	100	244	2	17,061
	356	1,476	402	157	3,315	250	174	1	10,070
65	335	4,580	999	58	12,570	560	537		13,537
	361	1,738	1,207	32	9,961	1,400	436	3	20,360
	120	315	670		3,627	70	206		4,775
	739	4,393	1,635	93	11,700	1,610	476		17,925
230	1,935	10,546	5,430	166	27,030	2,665	1275		10,932
231	744	3,169	1,133	132	9,725	625	405	2	24,014
	59	2,751	2,007		14,635	250	559		20,085
	271	849	1,046	137	7,320	425	388		13,375
100	191	624	907		4,350	150	192		7,380
268	28	3,452	2,305	104	13,550	190	723	2	21,380
100	263	3,695	1,005	33	7,201	1,165	356		7,680
	305	3,345	894	15	5,410	1,600	336	6	6,630
1160	6,692	48,721	23,969	1211	150174	13,367	7202	31	210,282

EATON COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam	
Bellevue,	$544	1	1		$4,500	4,000	$16000	1	1		$2,000
Benton,	552							1	1		600
Brookfi'ld,	245										
Carmel,	306							1		1	2,500
Chester,	619										
Delta,	252	1	1		1,500	280	1,120	1	1		1,000
Eaton,	702							1	1		950
E. Rapids,	1,062	1	1		4,000	6,000	2,400	5	5		7,900
Kalamo,	505							3	3		3,500
Oneida,	894							1	1		2,000
Roxand,	558										
Sunfield,	277										
Verm'tv'le	221							1		1	1,000
Walton,	429	1	1		4,000	5,000	20,000	3	3		3,800
Windsor,	282										
	7,448	4	4		14,000	15,280	39,520	18	16	2	25,250

EATON COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personale state.	
Annual product.			Hands empl'd				
Feet of lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By Assistant Marshals.
300,000	$1,800	$15,900	31		$40470		
90,000	540	600	1		540		
160,000	1,120	3,900	6		7,244		
150,000	900	2,500	3		10 320		
100,000	600	2,150	4		2 600		
1,410,000	8,160	17,300	22		20,364		
650,000	3,900	3,750	4		4,500		
100,000	600	2,000	1		600		
100,000	600	1,000	1		600		
600,000	3,600	9,350	10		36,440		
3,660,000	$21,820	$58,450	83		123,678	$570,979	$1,600,000

GENESEE COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of Inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Argentine,	88		88	436					$80,680
Atlas,	210		213	1,207					217,095
Clayton,	88		88	418					62,350
Davison,	69		69	367					47,080
East Genesee,	159		161	844					140,765
Fenton,	181		181	873					147,120
Forest,	33		34	179			1		12,400
Flint,	589		592	3,304	14		1		736,205
Flushing,	141		141	708					93,189
Gaines,	56		56	286				1	32,300
Grand Blanc,	207		209	1,165			1		278,990
Montrose,	13		13	52					3,688
Mundy,	159		159	786			2		104,750
Richfield,	93		96	482			1		50,400
Thetford,	57		57	303					32,700
Vienna,	72		72	389					52,950
West Genesee,	38		38	232					48,350
	2,253		2,267	12,031	14		6	1	$2,141,012

GENESEE COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
63	3,060	5,594	$67,980	$3,406	57		167	148	194
114	5,140	7,680	139,850	9,187	182		355	328	435
82	2,596	4,118	75,660	4,224	75		185	132	231
48	1,965	3,622	39,000	3,003	58		127	104	147
129	4,661	7,765	136,555	8,447	110		265	184	309
88	2,526	5,092	92,600	4,710	83		204	150	225
13	1,151	688	7,110	747	15		37	20	38
362	12,469	21,665	418,005	16,455	363		776	416	1,204
80	2,728	5,741	80,275	3,563	73		230	126	273
49	1,410	3,104	33,850	1,476	39		123	70	111
141	4,815	5,194	218,570	12,629	296		450	296	537
5	100	225	2,425	293	12		10	10	41
123	5,015	8,621	115,310	5,836	116		294	223	335
54	1,997	3,707	40,450	3,100	55		149	102	141
46	1,322	3,073	39,250	2,072	34		86	64	115
53	1,807	3,706	51,020	2,533	54		136	89	156
26	1,262	1,953	37,650	2,133	32		69	62	82
1476	54,024	91,548	1,595,560	83,814	1654		3663	2524	4,574

GENESEE COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats, bushels of.
Argentine,	742	239	$12,206	8,253	75	4,186	4,397
Atlas,	2,749	440	9,800	10,277	210	8,416	5,482
Clayton,	888	200	13,292	5,839		9,409	5,290
Davison,	1,075	114	10,430	3.624		4,288	2,583
East Genesee,	1.711	379	22,917	11.430	15	8,171	6,318
Fenton,	1,349	314	16,441	10,004	672	6,074	4,260
Forest,	40	43	2,147	672		1,855	352
Flint,	6,017	2,156	55,302	18,782	259	26,746	20,247
Flushing,	839	198	14,276	5,695	25	8.373	3,934
Gaines,	353	225	8,618	4,025		4.315	4,177
Grand Blanc,	6,150	778	44,021	18,346		17,285	12,906
Montrose,	120	13	1,282	410		620	265
Mundy,	1,931	404	23,726	11,966	6	11,138	8,123
Richfield,	511	196	10,551	3,401		5,015	2,202
Thetford,	275	155	6,737	2,043		3,956	1,502
Vienna,	499	186	9,183	3,137	70	4,585	2.455
West Genesee,	416	105	6,135	3,298	50	2,065	2,092
	25665	6,145	267,064	121202	1382	126497	86,585

GENESEE COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
	1822	2,469	2,280		12,504	800	607		150
240	1816	4,122	8,224	202	29,053	1,883	1580	44	3,863
7	752	2,535	2,452		16,218	100	872	10	12,495
	647	1,665	3,027		10,035	100	570	8	7,505
185	727	5,237	5,061	238	25,0[illegible]0	1,415	1250	50	11,475
45	1237	3,382	3,313		18,131	2,075	896		6,810
	84	254	132		235	150	121		1,715
269	2943	11,502	13,011	519	62,221	5,665	3416	84	29,465
45	480	2,344	2,379		19,120	3,485	748		13,185
	556	1,057	940		8,925		460		9,250
524	900	5,180	19,319	1473	39,191	10,056	2555	158	8,426
21	55	355	299		750	150	142		752
	1573	3,449	5,873		21,565	1,750	1452		12,674
70	520	1,626	1,492	72	11,115	50	511		12,311
36	90	1,681	1,077	35	7,924	480	428		6,270
85	501	2,631	1,958	106	7,680	1,365	639		4,610
	231	918	1,434	160	6,025	700	304	6	4,310
1527	14934	50,407	72,271	2805	295742	30,224	16551	360	162,266

GENESEE COUNTY—*Continued.*

TOWN'S.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bls. flour made.	Value of.		Water.	Steam.	
Argentine,	$371										
Atlas,	1425	2	2		$20000	10,277	$41108	1	1		$1,000
Clayton,	58										
Davison,	573										
E. Genesee	784										
Fenton,	439										
Forest,	51										
Flint,	2346	1	1		15,000	1,350	4,000	2	2		10,000
Flushing,	168										
Gaines,	82										
G. Blanc,	1055										
Montrose,	57										
Mundy,	652										
Richfield,	495							1	1		3,000
Thetford,	300										
Vienna,	70										
W.G'nesee	93										
*		4	4		28,300	12,800	49,200	1	1		1,700
	$9019	7	7		63,300	24,427	94,308	5	5		15,700

* Reported as Division No. 40, Genesee county.

GENESEE COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
200,000	$1,000	$19 925	14	1½	$53525		Not reported.
3,500,000	28,725	44,200	89		60,483		
		1,100	4		3,440		
500,000	3,000	3,000	2		3,000		
1,000,000	6,000	36,300	23		60,700		
5,200,000	38,725	104,525	132	1½	181,148	$744,577	

HILLSDALE COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Adams,	214		216	1129					$188,585
Allen,	186		200	1033					192,620
Amboy,	50		51	252	2				32,690
Camden,	106		106	594					75,935
Cambria,	133		138	716					122,490
Fayette,	160		165	895					208,050
Hillsdale, (vil.,)	195		199	1067	3				187,885
Jefferson,	140		145	763					110,940
Jonesville, (vil.,)	99		101	565					175,045
Litchfield,	242		251	1362			1		258,750
Moscow,	171		173	942					241,540
Pittsford,	230		230	1223		2	1		215,975
Ransom,	104		105	549					71,925
Reading,	174		176	956				1	206,800
Scipio,	152		153	864		1			299.828
Somerset,	170		170	913					186,913
Wheatland,	251		254	1358					270,376
Woodbridge,	86		87	404					41,480
Wright,	102		106	574					71,510
	2965		3,026	16,159	5	3	2	1	$3,159,337

HOUGHTON COUNTY.

Eagle Harbor,	24		24	126					17,310
Houghton,	59		59	546					25,000
L'Ance,	33		33	126					10,500
	116		116	798					52,810

HURON COUNTY.

				207					

HILLSDALE COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
90	4,947	4,770	$123,400	7,401	137		252	120	283
98	5,274	5,587	145,820	7,652	154		254	146	309
13	525	654	10,650	986	11		34	24	43
47	1,825	3,679	53,450	2,790	53		126	82	205
62	2,710	4,012	85,750	5,041	59		153	91	220
90	6,331	5,881	170,490	8,645	138		271	80	380
78	3,104	4,186	75,730	4,736	58		189	125	261
128	7,271	6,998	200,167	11,860	221		353	142	465
103	9,869	7,480	216,820	10,600	187		297	178	252
134	5,965	7,111	178,800	11,412	167		397	177	534
47	2,315	2,481	47,770	2,890	59		122	70	155
95	4 824	6,516	153,140	9,612	152		258	115	409
82	5,741	5,763	145,570	7,420	145		240	134	277
100	6,398	6,831	143,098	9,117	172		271	150	341
160	8,375	8,334	228,910	12,755	293		444	186	325
38	1,074	2,224	29,500	1,793	29		81	59	118
46	2,392	2,926	51,060	3,172	55		143	74	205
1411	78,940	85,433	2,060,125	117882	2090		3885	1953	4,982

HILLSDALE COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls.	Oats, bushels of.
Adams,	1739	372	$19,403	13,861	283	17,205	9,317
Allen,	2043	507	22,712	13,577	230	18,498	10,260
Amboy,	116	59	2,402	1,360		1,631	1,052
Camden	475	326	9,237	5,462		9,560	3,000
Cambria.,	729	300	11,942	9,194	105	10,785	4,938
Fayette,	2743	494	23.892	19,492	60	15,250	8,804
Hillsdale, (vil.,)							
Jefferson,	618	465	13,469	10,869	25	10,515	4,864
Jonesville, (vil.,)							
Litchfield,	2721	606	30,649	17,440		24,010	12,035
Moscow,	4210	370	29,280	27,666		19,555	20,167
Pittsford,	2388	793	29,478	11,765	247	21,260	7,789
Ransom,	308	253	9,243	9,675	10	8,155	3,130
Reading,	1117	439	22,609	11,845		23,172	7,891
Scipio,	2936	433	22,588	17,679	197	14,530	10,003
Somerset,	2079	466	24,493	19,174	150	13,875	11,611
Wheatland,	3020	844	36,990	22,975	235	28,067	14,978
Woodbridge,	227	212	5,754	2,980		3,886	1,998
Wright,	393	260	9,667	5,150		7,576	3,650
	27862	7,199	323,808	220164	1542	247,530	135487

HILLSDALE COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
137	1431	5,762	5,449	491	25,100	5,810	1013	48	12,695
10	1501	8,503	6,436	599	20,185	2,546	556	34	6,952
	175	635	311		2,820	585	115		2,100
20	489	3,585	1,376	134	8,625	1,880	335	4	8,629
	849	5,346	2,059	250	13,715	300	421	1	9,531
	1767	9,878	7,482	469	24,770	1,615	1131	34	1,700
	1870	5,495	2,001		15,975	640	304	13	6,225
	2537	12,483	8,125	609	31,383	6,540	1066	40	9,875
	1054	8,979	12,248	613	25,810	2,920	917	87	975
30	1903	10,609	7,516	749	29,100	15,310	1505	26	17,462
	810	2,974	919	35	9,800	770	277	21	3,195
130	430	7,249	3,326	373	24,403	4,860	921	19	52,851
49	2106	6,280	8,602	40	20,535	2,750	634	44	
	1580	6,712	5,947	584	28,280	10,150	1258	82	2,045
266	1028	9,434	8,860	926	42,550	7,362	1326	103	24,161
	561	2,395	601	58	7,285	380	245	20	5,695
16	808	2,364	1,362	22	9,785	2,900	454	29	6,070
658	20899	108683	82,620	5952	340121	67,318	12478	605	170,161

HILLSDALE COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam	
Adams,	$1647										
Allen,	979							2	1	1	$3,000
Amboy,	94	1	1		$3,500	1,000	3,500	1	1		†
Camden,	607										
Cambria,	682	1	1		3,500	2,000	9,000	2	2		1,100
Fayette,	772							1	1		3,500
H'e, (vil.,)		*2		1	30,000	10,000	40,000	1		1	500
Jefferson,	795							5	5		6,500
J'e, (vil..)		1	1		20,000	4,000	16,000				
Litchfield,	1516	1	1		12,000	8,000	40,000	1		1	1,400
Moscow,	1181							2	2		2.000
Pittsford,	1892	1	1		2,000	1,200	5,400	4	3	1	7,000
Ransom,	302							1	1		1,000
Reading,	1421										
Scipio,	878	1	1		8,000	1,380	6,210	1	1		1,000
Somerset,	1263							1	1		2.000
Wheatla'd	2751							1		1	2,500
W'dbridge	273							1	1		600
Wright,	525										
	17578	8	6	1	79,000	27,580	120110	24	19	5	32,100

* One steam and water.
† Not stated.

HILLSDALE COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invested in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
						$45,000	$60,000
850,000	$5,950	$3,000	6½		$5 950	46,500	66,000
150,000	900	4,000	7		5,400	26,000	36,000
						30,000	40,000
240,000	1,740	4 850	6		12,240	35,000	48,000
450,000	3,150	3,650	7		3,870	*	*
200,000	1,200	36,300	29		50,795	*	*
1,025,600	5,480	7,450	37		7,592	36,500	48,000
		20,000	3		16,000	*	*
350,000	2,275	13,400	6½		45,650	55,000	73,000
600,100	3,900	4,000	6		6,900	60,000	80,000
1,450,000	9,050	9,000	10		14,550	47,000	63,000
180,000	1,260	1,000	1		1,260	28,000	38,000
		170	2		500	43,000	58,000
200,000	1,200	9,000	6		9,522	48,000	64,000
140,000	840	2,750	5		2,120	37,000	50,000
300,000	2,250	2,650	6		3,750	55,000	73,000
200,000	1,300	600	2		1,300	28,000	38,000
		400	2		1,000	30,000	40,000
6,335,000	40,495	122,220	142		188,399	$650,000	$875,000

* Not stated.

INGHAM COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Alaiedon,	73		73	377			1		$54,170
Aurelius,	93		94	501					54,210
Bunker Hill,	71		71	374					56,975
Delhi,	78		78	402					62,321
Ingham,	130		130	754	5				112,060
Lansing,	241		241	1229	13	1	1		175,844
Le Roy,	41		41	254					28,830
Leslie,	129		129	673					87,900
Locke,	62		62	321					40,830
Meredian,	65		67	367					47,140
Onondaga,	147		149	819			1		126,700
Phelpstown,	71		72	393					65,960
Stockbridge,	122		122	657					124,775
Vevay,	140		140	783		1			126,840
Wheatfield,	45		45	231					30,195
White Oak,	89		89	508					64,030
	1597		1,603	8,643	18	2	3		$1,258,780

INGHAM COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
66	1,768	4,426	$53,200	$2,419	45		152	112	162
53	1,764	3,700	46,500	2,026	30		122	94	111
66	2,793	6,546	63,305	2,587	42		160	149	122
79	2,326	4,966	68,550	2,807	48		189	98	131
78	3,370	5,786	83,150	4,575	92		191	131	165
16	630	1,156	16,800	836	10		35	30	20
37	1,068	2,613	26,350	1,526	17		91	68	113
105	3,427	8,400	82,300	4,148	54		205	169	152
56	1,598	4,366	42,090	2,260	21		127	117	150
57	1,395	4,830	44,535	1,984	22		123	106	127
121	6,059	8,622	123,395	6,269	120		215	231	254
52	1,875	3,294	42,750	2,365	52		102	87	99
99	4,968	7,128	109,220	4,835	125		251	168	361
80	3,084	6,784	84,200	2,673	51		198	134	196
40	1,001	3,130	28,100	1,475	23		93	65	90
79	3,023	5,699	65,680	3,304	63		165	137	211
1084	40,149	80,846	$981,125	46,089	815		2419	1896	2,464

INGHAM COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats, bushels of.
Alaiedon,	512	215	$9,416	2,433	90	3 997	2,859
Aurelius,	679	189	7,297	4,127		6,372	2,626
Bunker Hill,	617	217	10,290	5 947		5,893	2 467
Delhi,	505	243	9,748	4,701	213	5,164	5,332
Ingham,	770	279	13,908	8,224		8,835	5,806
Lansing,	65	93	2.688	607		1,365	2,075
Le Roy,	433	165	5,894	1,623		3,838	2,507
Leslie,	708	405	13,359	6,176		9,716	5,043
Locke,	630	271	8,424	3,647		4,020	2,788
Meridian,	230	189	7,404	2,296	120	3,280	2,055
Onondaga,	1514	497	21,663	15,047		12,015	4,419
Phelpstown,	1591	138	9.031	5,162		4,270	3,208
Stockbridge,	1329	360	17,793	10,549		10,295	6,771
Vevay,	718	279	11,714	3,642		7.135	4,867
Wheatfield,	328	168	5.668	1,753		3,050	2,015
White Oak,	894	354	12,645	5,753		6,025	3,576
	11523	4062	166,942	81,687	423	95,270	58,414

INGHAM COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
	572	2,280	1,408	25	10,982	600	529	7	24,016
20	452	3,204	1,823	42	5,635	300	235	27	13,990
17	1256	4,536	1,770	20	9,429	920	585		1,700
10	436	4,092	1,290	67	8,184	681	559	10	17,520
10	1673	3,320	2,309	69	9,225	475	485	57	8,000
20	447	1,140	138		2,660	200	200		3,375
	617	1,671	891		5,815	200	240		9,610
	1011	5,866	1,997	32	12,694	800	764	16	16,180
188	723	2,467	1,629		9,109	2,070	473	7	11,975
	251	2,525	691		7,422	790	599		3,931
12	798	8,231	3,861	5	17,065	2,120	789	24	6,925
	342	1,942	8 2		7,721	470	236		2,340
	1365	7,162	3,991	35	11,350	790	1222	49	1,790
	883	6,078	2,281	43	10,955	1,570	724	16	30,555
	408	1,759	932		5,390	610	284		6,470
	1747	3,517	2,346	5	10,444	647	696	25	7,627
277	12981	59,790	28,229	343	144080	13,243	8,620	238	166,004

INGHAM COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam	
Alaiedon,	$576										
Aurelius,	552							1		1	$2,000
B'k'r Hill,	640										
Delhi,	500										
Ingham,	736							1		1	2,300
Lansing,	118	1	1		$12000	1,555	$6,220	1	1		1,000
Le Roy,	391										
Leslie,	865							2	2		1,600
Locke,	721										
Meridian,	170							1	1		1,200
Onondaga	785	1	1		6,000	300	1,200	1	1		1,000
Phelpst'n,	554	1	1		4,000	1,000	4,500	1	1		1,500
Stockb'ge,	851										
Vevay,	603	1		1	5,000	2,405	8,937	3	3		2,500
Wheatfi'ld	276							1	1		1,000
Wh. Oak,	821										
	$9159	4	3	1	27,000	5,260	20,857	12	10	2	14,100

INGHAM COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personale state.	
Annual product.			Hands empl'd				
Feet of lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By Assistant Marshals.
		$200	1		$700	$40,000	$100,000
160,000	$960	2,000	1		960	35,158	105,464
						32,964	98,892
						40,455	121,365
650,000	3,900	2,300	3		3,900	41,330	123,990
600,000	4,200	19,050	23		20,926	131,830	395,490
						28,119	75,000
500,000	3,000	3,500	4		5,000	40,285	120,000
						30,756	90,000
300,000	2,100	1,200	2		1,200	38,055	104,000
250,000	1,500	7,000	2		2,700	42,624	150,000
400,000	2,400	6,800	4		9,640	34,626	102,000
		700	3		2,300	41,530	124,590
600,000	3,600	7,700	8		14,012	48,520	145,560
150,000	1,000	1,000	1		1,000	29,398	75,000
						32,356	100,000
3,610,000	22,660	$51,450	52		$62,388	$688,006	$2,031,351

IONIA COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of Inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Berlin,	68		71	391					$48,000
Boston,	73		75	424					50,050
Campbell,	7		7	40					4,220
Danby,	49		49	262		1			22,892
Easton,	72		72	397					55,600
Ionia,	142		142	774					123,271
Keene,	133		133	737			1		73,880
Lyons,	156		156	850					132,080
North Plains,	55		55	292					50,160
Odessa,	16		16	81					6,760
Orange,	69		69	378					33,787
Orleans,	90		92	491					59,860
Otisco,	184		190	1018				1	115,680
Portland,	139		139	763					124,950
Ronald,	80		81	452					68,790
Sebewa,	41		41	247					16,015
	1,374		1,393	7,597		1	1	1	$985,995

IONIA COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
43	1,703	3,038	$40,380	$2.441	40		125	90	201
39	1,606	4,036	42,400	1,973	38	2	108	82	185
4	120	200	2,200	189	5		12	16	10
23	674	2,551	15,550	880	21		55	46	91
33	1,479	3,358	36,000	2,076	43		114	47	162
34	2,336	3,200	51,700	2,632	44		104	78	184
64	2,850	3,935	55,975	3,044	59		141	100	175
54	3,241	3,245	75,500	4,886	96		141	134	285
39	1,550	2,713	35,300	3,280	40		90	60	136
10	304	562	5,030	327	16		25	13	33
26	986	2,094	25 300	1,602	35		75	48	98
57	2,319	4,306	48,720	2.804	33		108	108	121
80	4,577	5,793	100,335	4.898	83		177	198	237
45	3,046	4,296	75,450	3,334	95		149	100	213
50	2,808	4,458	51,900	3,507	40		126	124	176
12	468	1,106	85,000	776	23		30	22	58
613	30,067	46,891	$746,740	$38,649	711	2	1580	1266	2365

IONIA COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats bushels of.
Berlin,	553	270	$8,764	3,372	115	6,015	2,333
Boston,	500	216	8,349	4,976	137	4,110	1,355
Campbell,	9	35	1,047	399		662	270
Danby,	296	125	4,761	1,676	20	1,785	943
Easton,	546	183	6,616	2,105	60	4,565	1,630
Ionia,	678	207	8,563	5,798		4,850	2,830
Keene,	618	261	10,064	7,746	625	6,037	3,948
Lyons,	674	343	14,564	8,472		6,192	5,914
North Plains,	738	180	7,143	5,921		4,040	2,430
Odessa,	110	54	2,004	750		855	450
Orange,	341	184	5,891	1,617		3,384	2,485
Orleans,	425	209	7,590	6,762	264	6,445	2,458
Otisco,	941	319	15,591	12,561	1082	10,920	7,411
Portland,	1257	423	14,679	6,756	150	8,280	4,500
Ronald,	603	248	9,477	7,552	70	6,665	4,686
Sebewa,	158	79	2,927	583	20	1,140	360
	8,447	3,336	128,030	76,946	2543	75,945	44,003

IONIA COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
	259	4,335	1,678	$154	10,667	1150	491	5	18,590
	240	3,479	1,503	25	8,112	1225	459	24	9,230
		520	20		810		33		1,975
	346	1,140	622	29	3,350	90	146	2	5,000
	84	5,235	1,843	35	6,725	8300	602	5	8,790
	318	4,150	1,838		7,172	3400	491		2,755
55	1252	5,01	1,663	25	13,593	100	404		12,790
35	495	3,805	1,752	39	11,075	1750	512		10,000
	420	3,280	2,081	30	6,275	300	233	2	7,140
180	65	286	252		870		73		2,870
160	244	2,610	847	18	4,655	780	274	10	8,190
60	293	4,720	1,085		8,660	850	443		4,180
507	1396	9,068	2 678	48	15,375	700	383	14	888
60	340	4,170	2,775	450	9,100	1366	652		11,839
	1510	4 296	1,718		10,020	300	286		9,910
	50	1,195	1,418	13	1,300	75	114	15	4,390
1057	7,312	57,304	23,823	$866	117769	20,386	5,596	77	118,537

IONIA COUNTY—*Continued.*

TOWN'S.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bls. flour made.	Value of.		Water.	Steam.	
Berlin,	$542										
Boston,	665							2	2		$1,600
Campbell,											
Danby,	306										
Easton,	480							1	1		600
Ionia,	364	1	1		$4,000	1,600	$9,750	1	1		500
Keene,	738										
Lyons,	737										
N. Plains,	293							1	1		2,000
Odessa,	42										
Orange,	444										
Orleans,	381										
Otisco,	878							1	1		8,000
Portland,	765										
Ronald,	425										
Sebewa,	185										
	7245										

IONIA COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invested in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
						*	*
200,000	$1,420	$1,600	2		$1,420	*	*
						13,161	13,161
						*	*
100,000	700	600	1		700	*	*
200,000	1,200	14,100	34		35,891	*	*
						*	*
						*	*
600,000	3,600	2,000	4		3,600	*	*
						10,983	10,983
						*	*
						23,864	23,864
2,000,000	10,000	8,000	20		11,200	*	*
		900	2		3,000	*	*
						*	*
						*	*

* Not stated.

JACKSON COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Columbia,	205		211	1142				2	$254,710
Concord,	184		184	984					272,395
Grass Lake,	233		235	1281		3			270,530
Hanover,	180		180	931					206,530
Henrietta,	138		142	830					143,770
Jackson,	702		719	4147	63		1	4	995,585
Leoni,	234		236	1290				2	258,371
Liberty,	164		169	891		2	1		184,650
Napoleon,	228		230	1208					245,960
Parma,	193		193	1081	1				231,900
Pulaski,	148		148	760					157,650
Rives,	88		88	513					85,300
Sandstone,	168		168	823					230,925
Spring Arbor,	191		191	1075		2			270,488
Springport,	151		151	759					159,690
Tompkins,	131		131	623		3			85,842
Waterloo,	205		207	1090					142,660
	3,543		3,583	19,433	64	10	2	8	$4,196,956

JACKSON COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
168	11,203	11,794	$250,500	$11078	290		399	245	460
123	9,129	8,793	252,560	11,136	243		361	260	399
148	12,192	12,352	245,800	10,6[illegible]0	275		387	231	305
143	9,026	8,579	199,980	9,101	179		323	251	319
120	6.739	10,941	144.580	7,291	133	3	358	336	386
236	15,642	18,486	494,430	17,119	407	4	765	496	924
180	10,193	11.938	248,745	11.035	242		459	290	445
148	8,714	8,538	166,100	8,292	207		346	212	340
109	9,396	10,436	187,350	9,020	212		306	140	251
130	9,148	8,010	215,650	9,961	192		403	269	350
127	7,495	8,070	171,300	7,025	132		304	250	295
72	3,472	4,531	87,060	4,602	95		214	145	219
113	7,886	10,545	216,240	9,087	176		316	239	294
150	11,629	10.841	280.598	11,379	277		444	335	477
116	6,835	7,512	149,580	7,735	142		299	234	263
86	3,922	4,310	82,512	4,785	74		204	194	218
113	5,704	9,927	112,900	6,562	181		303	194	324
2282	148,330	165,603	3,505,885	155888	3457	7	6191	4321	6,269

JACKSON COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats bushels of.
Columbia,	3,102	929	$35,987	26,970	1662	18.656	8,855
Concord,	5,428	572	31,541	28,206		16,837	11,543
Grass Lake,	2,985	662	28,764	38,325	750	21,33	10.660
Hanover,	3 329	628	29,803	37,319	20	17,551	8,727
Henrietta,	2,207	751	29,043	19,756	150	11,375	5,570
Jackson,	4,644	1494	65,428	38,802	484	26.582	14,165
Leoni,	2,363	963	34,614	26,969	912	18,989	7,134
Liberty,	2,133	890	28,452	26,926	306	16,300	13.445
Napoleon,	3,494	462	22,978	26,052	937	18,260	11.215
Parma,	3,229	622	29,648	36,455		13,828	13,388
Pulaski,	2,852	581	23,600	29,064		15,726	8,051
Rives,	1,098	431	16,437	10,980		8,596	7,210
Sandstone,	4,277	450	27,434	26,124		11,582	12.935
Spring Arbor,	4,890	715	42,181	44,320	45	19,835	13,210
Springport,	2,177	442	23,123	23.699		13,227	17,748
Tompkins,	1,067	331	14,106	14,805		8,527	8,525
Waterloo,	1,819	667	17,874	21,845		11,524	4,856
	51094	11590	501,013	476617	5266	268,725	177237

JACKSON COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
	3066	10,711	9,239	$442	37,078	9,510	1844	50	
60	30	2,646	2,690		8,035	1,146	537	18	
	3814	10,635	9,436	110	20,120	2,960	1820	293	
60	339	8,802	8,296		19,733	730	1304	5	
	765	12,660	6,076	42	21,645	1,356	2230	9	
171	2388	22,235	14,431	495	48,460	6,560	4605	7	400
	4203	12,278	6,225	526	27,255	1,880	1839	28	
261	1960	8,812	6,177	257	25,061	1,620	1424	37	
80	736	7,780	10,573	149	15,145	3,000	799	83	
480	1353	7,677	8,550	10	21,149	830	1387		
299	798	7,089	6,614		15,835	900	936	12	
815	1144	4,580	3,409	52	12,485	3,210	979	16	
470	1047	10,356	13,230	160	19,146	950	1 20	35	
16	503	12,472	13,348	10	22,049	790	2403	19	
58	1322	7,392	6,247	10	17,420	300	1459	6	
210	453	5 261	3,290		11,289	500	670	3	
	2557	8,729	4,432	61	14,395	400	1399	35	
2980	26478	160115	132263	2324	356300	36,612	27355	656	400

JACKSON COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
Columbia,	$1554	1	1		$7,000	1,300	$5,200				
Concord,	326	3	3		25,000	15,000	51,100	2	2		$5,500
G. Lake,	969	1		1	8,500	7,880	28,120				
Hanover,	1686										
Henrietta,	691							2	2		2,200
Jackson,	3056	3	2	1	36,000	28,000	110440	3	3		3,800
Leoni,	1417	2	2		16,000	9,000	36,000	3	3		2,100
Liberty,	1268	1	1		10,000	3,500	14,000	1	1		1,000
Napoleon,	902	1	1		10,000	5,500	22,000	1	1		2,000
Parma,	807	1		1	10,000	5,000	15,000				
Pulaski,	810										
Rives,	735										
Sandstone,	471							1		1	1,600
Sp. Arbor.	2029	1	1		10,000	2,500	8,000				
Springport	357							1	1		500
Tompkins.	542							1		1	2,000
Waterloo,	983	2	2		13,000	5,210	19,790				
	18603	16	13	3	145500	82,890	309650	15	13	2	20,700

JACKSON COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
		$9,000	9		$9.610	$86,016	$276,000
400,000	$3,000	32 450	24		59,550	87,812	263,446
		15,500	15		33,720	118,646	217,184
		500	4		1,900	75,103	225,309
160,000	1,400	2,200	1½		1,400	56,887	170,500
400,000	3,200	101.050	211	20	248,734	404,445	1,116,600
160,000	1,360	23,550	29		63,100	81,080	274,800
10,000	600	11,300	9		19,220	55,449	188,500
300,000	2,100	14,000	9		25,500	114,958	209,101
		11,225	17		21,420	70,987	212,961
						38,798	173.394
		1,650	6		3,078	36,090	100,500
150,000	1,500	1,850	4		2,500	66,902	200,706
		10,350	7		9,300	*	*
200,000	1,400	600	4		2,200	50,735	152,205
700,000	2,400	2,250	8		3,400	51.048	153,162
		13,000	4		19,790	54,342	103,234
2,480,000	$16,960	$250,475	361	20	524,422	1,449,298	$4,037,602

* Not reported.

KALAMAZOO COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of Inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Alamo,	79		80	420					$66,280
Brady,	111		111	578	13				76,400
Cooper,	127		127	733					149 950
Comstock,	113		115	1202				4	179,780
Climax,	84		84	504					95,400
Charleston,	156		156	846		1			140,325
Kalamazoo, (vil.)	441		456	2507	34	1		1	659,940
Kalamazoo (t'n,)	138		138	777	6				158,780
Oshtemo,	117		117	587	25			1	159,200
Pavillion,	92		92	495	3	2			94,400
Portage,	135		135	726					158.050
Prairie Ronde,	124		124	690					205,520
Richland,	52		52	795					220,500
Ross,	133		133	680					120,600
Schoolcraft,	188		188	1101	16	1			365.550
Texas,	77		78	410					104.900
Wakeshena,	24		24	128					15,675
	2,191		2,210	13,179	97	5		6	$2,971,250

KALAMAZOO COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
37	1,785	3,057	$41,800	$4,300	47		97	78	152
70	3,531	4,229	75,950	7,122	120		177	120	226
93	4,023	5,734	130 300	11,932	125		216	157	271
82	4,334	5,997	119,800	8,810	113		193	147	342
40	4 031	3,788	96,000	5,445	123		129	60	183
93	5,656	6,542	138,500	10,035	206		258	141	339
90	5,322	5,673	201,000	13,219	168		241	181	407
78	5,269	5,090	148,100	10,855	132		204	153	215
71	3,870	5,207	88,600	5,675	85		188	125	267
88	5,669	6,858	163,650	9,860	183		230	209	241
68	5,526	6,422	190,300	10,575	260		229	56	293
86	6,983	6,521	200,100	12,893	196		268	142	477
41	1,854	3,562	53,900	4,010	58		89	78	151
91	9,495	5,799	226,520	17,446	364		325	101	403
60	5,370	4,352	111,700	9,715	163		155	83	273
12	329	1,307	11,100	875	10		35	37	90
1100	73,047	80,133	1,997,320	142767	2353		3034	1868	4,330

KALAMAZOO COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls	Oats, bushels of.
Alamo,	445	258	$5,813	4,413	140	7,030	1,310
Brady,	1,354	619	14,210	12,328	15	6,925	2,387
Cooper,	1,433	520	13,448	13,416	125	20,100	4,550
Comstock,	1,817	619	13,930	11,350	780	20,090	5,380
Climax,	4,349	294	13,770	11,210		20,725	4,960
Charleston,	2,871	768	20,642	17,037	50	11,120	4,025
Kalamazoo(vil.)							
Kalamazoo (t'n)	3,200	518	19,640	13,910	360	20,845	6,168
Oshtemo,	3,042	666	15,130	15,937		65,755	8,115
Pavillion,	742	562	11,105	10,247	40	16,605	3,525
Portage,	2,342	621	18,206	18 727	470	12,350	6,055
Prairie Ronde,	1,834	685	19,033	17,922		24,530	13,275
Richland,	9,420	1059	26,325	20,245	440	52,600	19,325
Ross,	680	346	6,965	7,533		7,120	1,530
Schoolcraft,	3 017	916	31,394	39,395		59,420	13,333
Texas,	1,014	542	14,285	13,280	185	27,450	3 770
Wakeshena,	114	140	2,230	863		2,330	325
	37674	9113	246,126	227813	2605	374995	98,063

KALAMAZOO COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
240	348	4,033	1,026		5,890	1,320	311		3,370
20	250	4,860	3 437	$45	11,512	650	660	15	3,690
445	278	8,827	3,549	362	13,775	1,270	563	19	15,155
80	968	7,957	3,743	445	13,325	500	942	2	15,210
25	605	3,065	9 968		7,485	4,250	773	40	1,570
174	705	7,492	6,628	130	17,390	2,320	971	16	700
580	900	11,212	8.678	170	15,829	2,805	1222	54	7,725
1157	220	3.725	7.953	490	14,570	2,815	433		8 230
275	246	6.360	2,106		11,093	71	643	16	8,950
240	570	6,430	5 391	180	14,375	1.420	821		1,700
860	135	5,390	5,098	1272	13,641	11,400	477	67	3,510
375	33	13,325	23,537	30	14,625	3,950	611	12	500
	80	4.300	1,505	117	5,367		422	8	
405	250	7,345	7,838	296	18,655	6,720	1238	106	
110	175	5,975	3,775	270	11,305	720	477	14	510
20	70	1,516	186	165	2,190	250	154		8,950
5006	5,834	101812	94,328	3972	191027	40,461	10718	369	79,770

KALAMAZOO COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam	
Alamo,	$160										
Brady,	202										
Cooper,	673										
Comstock,	237	3	3		$18500	12,000	$42000	4	4		$2,000
Climax,	155										
Charlest'n	351										
Kal. (vil.,) Kal. (t'n,)	131	4	2	2	37,000	18,500	71,000	5	3	2	10,500
Oshtemo,	639										
Pavillion,	500										
Portage,	666										
Pr. Ronde	437										
Richland,	295										
Ross,	70	3	3		22,000	15,500	62,000	4	4		8,500
Sch'olcraft	287										
Texas,	108										
Wakesh'a,	70										
	$5031	10	8	2	77,500	46,000	175000	13	11	2	21,000

KALAMAZOO COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By Assistant Marshals.
						$20,794	$27,725
						23,905	31,873
						*	*
1,350,000	$9,515	$20,500	13		$51515	55,758	74,344
						34,588	46,117
						54,085	72,113
						*	*
2,800,000	18,600	129,300	141	25	222474	179,813	239,750
						45,341	60,454
						29,041	38,721
						41,185	54,193
						53,601	71,468
						53,960	71,946
1,050,000	7,350	36,500	35	14	81,725	42,132	56,175
						85,850	114.466
						37,896	50,528
						19,957	26,609
5,200,000	$35,465	$186,300	189	39	355,714	$777,906	$1,036,482

* Not reported.

KENT COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Ada,	113		113	593					$98,495
Algoma,	46		46	233					24,325
Alpine,	122		122	618				1	110.140
Bowne,	39		39	220					37,580
Byron,	57		57	309		1			25,620
Cannon,	121		121	696	1		2		82,375
Cascade,	68		68	358					48,400
Courtland,	78		78	406					63,225
Caledonia,	18		18	99					11,600
Gaines,	62		62	319	11				37.480
G. Rapids, (city)	489	489	489	2646	13				584,350
G. Rapids, (t'n,)	92		92	503					86,750
Grattan,	119		119	648					86,371
Lowell,	41		41	234					31,625
Oakfield,	71		71	404					63,390
Paris,	94		94	521			1	1	95,590
Plainfield,	120		120	659	4				89,195
Sparta,	69		69	309					39,350
Vergennes,	160		160	876		1	1		145,537
Walker,	156		156	823	1				147,750
Wyoming,	111		111	543					106,305
	2,246	489	2,246	12,017	30	2	4	2	$2,015,447

KENT COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
72	3,542	7,233	$89,550	$4,463	94		194	114	235
5	151	689	5,000	260	4		9	10	10
36	1,585	3,334	54,200	2,731	39		93	46	165
39	1,147	3,875	31,290	1,918	26		94	95	93
22	568	1,912	15,050	915	6		50	40	68
47	1,651	3,439	45,650	2,971	32		91	97	131
38	1,457	2,574	34,500	2,850	25		98	86	179
36	1,399	2,821	38,100	1,898	23		75	78	80
4	159	462	4,950	325	9		39	6	24
23	909	2,045	25,500	1,825	16		75	34	115
29	1,288	2,373	58,150	2,642	48		79	45	99
123	3,792	10,225	97,730	4,236	34		219	270	156
23	719	1,925	27,500	1,516	14		58	60	49
49	2,010	4,848	44,630	2,461	26		94	119	81
50	2,585	3,191	78,150	5,885	77		144	68	175
23	1,388	1,479	32,100	3,725	33		79	42	155
11	271	1,925	10,600	665	7		20	18	25
142	5,600	10,754	142,401	7,088	131		326	265	337
77	3,482	5,408	117,600	5,749	90		212	98	312
36	1,829	2,024	52,150	3,265	57		114	50	160
885	35,532	72,536	1,004,801	$57,388	791		2163	1641	2649

KENT COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats, bushels of.
Ada,	854	451	$15,588	6,973	675	8,910	6,834
Algoma,	9	40	935	235		950	130
Alpine,	368	304	8,293	2,127		4,696	2,331
Bowne,	264	165	7,356	2,276		3,277	1,482
Byron,	65	145	3,261	738		2,700	1,050
Cannon,	311	169	8,421	3,732	138	4,340	2,779
Cascade,	378	233	8,312	2,896	40	4,120	3,780
Courtland,	114	257	6,443	3,520	35	2,736	3,499
Caledonia,	12	51	1,069	405	16	525	245
Gaines,	117	187	4,799	2,905		3,470	1,990
G. Rapids, (city)							
G. Rapids, (t'n,)	576	196	7,179	1,706	277	3,210	2,165
Grattan,	894	386	17,428	8,241	150	7,041	3,703
Lowell,	188	86	4,461	1,225	20	1,525	816
Oakfield,	277	135	7,943	5,349	146	3,830	2,610
Paris,	736	424	12,505	3,734	440	7,625	3,476
Plainfield,	260	200	7,019	3,143	880	4,740	2,820
Sparta,	25	71	1,769	330		1,265	280
Vergennes,	1453	587	26,353	12,023	240	13,079	8,896
Walker,	741	490	16,425	5,203		9,296	6,528
Wyoming,	472	266	9,438	2,539	1060	6,275	4,408
	8,114	4,843	174,997	69,300	4117	93,610	59,822

KENT COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
45	1515	6,858	2,512	$75	16,004	2335	865	12	1,070
	52	460	25		650		7		
50	153	3,140	1,168	78	6,975		486	9	11,000
	87	2,608	666		9,270	480	350	4	7,390
65	187	2,380	190		3,600	150	180		6,290
20	1212	4,536	803	50	8,787		391		400
	381	4,738	1,031		8,090		457		6,975
96	711	3,005	278		5,430		158		700
	65	511	41		1,400	650	70		60
9	357	1,979	397	132	7,300	1050	162		10,861
	712	4,320	1,664	172	5,975	1100	697	43	665
797	399	5,648	1,902	5	20,775	1430	761	2	2,660
	240	1,425	542	16	5,465	1040	178		2,760
230	917	4,303	658		9,645	350	268	1	550
15	938	5,575	1,961		11,950	1400	671		13,460
	895	2,730	814		6,175	100	280	12	
	75	705	75		1,750		66		3,650
1074	1338	8,780	3,506	38	26,244	2060	720	38	2,780
341	639	5,738	2,387	214	16,720	460	957	15	12,483
75	1171	4,690	1,385	50	9,010	1135	427	12	7,693
2817	12044	74,129	22,005	830	181,215	13,740	8,141	148	91,447

KENT COUNTY—*Continued.*

TOWN'S.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bls. flour made.	Value of.		Water.	Steam.	
Ada,	$1130										
Algoma,	10							3	3		$7,100
Alpine,	377							3	3		5,000
Bowne,	318										
Byron,	35										
Cannon,	451	2	2		$8,000	3,333	$10000	1	1		1,000
Cascade,	330										
Courtland,	248										
Caledonia,											
Gaines,	500										
G. R. (city)		2	2		19,000	15,000	60,000	3	3		8,500
G. R. (t'n,)	287										
Grattan,	768										
Lowell,	181										
Oakfield,	216										
Paris,	647										
Plainfield,	575							3	3		12,000
Sparta,	22							1	1		1,000
Vergennes	1678	2	2		7,000	2,211	8,844				
Walker,	551							3	3		4,000
Wyoming,	657							1	1		1,500
	$8981	6	6		$34000	20,544	78,844	18	18		40,100

KENT COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invested in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
		$300	2		$1,000	$33,211	$44,281
1,700,000	$6,950	7,100	12		6,950	21,566	28,754
1,500,000	7,500	5,000	12		7,500	37,776	50,368
						18,241	24,321
						23,949	31,932
150,000	750	9,100	6		12,550	35,609	47,478
						25,984	34,645
						20,877	27,836
						20,489	27,318
						23,831	31,774
2,600,000	13,000	89,050	155		190200		
						231,245	308,326
						18,241	24,321
						22,091	29,454
						25,175	33,560
						41,539	55,385
4,000,000	19,100	12,000	19		19,100	35,075	46,766
125,000	625	1,000	1		625	23,036	30,714
		8,900	13		12,669	32,170	42,893
850,000	4,550	4,000	8		4,550	68,591	91,454
500,000	3,000	12,900	17		14,000	41,968	55,957
11,425,000	55,475	149,350	245		269,144	$800,669	$1,007,537

LAPEER COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Almont,	271		274	1452			2		$270,710
Attica,	84		85	462					53,750
Dryden,	207		209	1131				1	159,100
Elba,	51		52	255					48,660
Hadley,	148		149	846			1		125,625
Imlay,	31		31	183					18,215
Lapeer,	258		259	1467	6	1			334,833
Marathon,	41		41	205		1			27,050
Metamora	160		160	821			2		121,060
Oregon,	36		36	204					27,150
	1,287		1,296	7,026	6	2	5	1	$1,186,153

LAPEER COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
135	7,776	6,250	$194,310	$9,960	256		374	215	633
35	1,676	2,270	33,700	2,171	43		84	74	112
105	5,586	6,214	121,550	6,760	137		268	185	410
36	2,129	2,491	37,050	3,082	29		75	72	122
73	4,036	4,762	86,050	6,577	112		211	142	245
7	262	651	6,780	460	19		24	12	27
124	7,044	10,042	176,300	12,244	174		337	250	336
14	538	1,069	12,650	1,140	19		33	24	85
87	5,447	4,830	105,550	6,484	131		226	161	345
12	409	964	8,300	910	13		24	20	29
628	34,903	39 543	$782,240	$49788	933		1656	1155	2,344

LAPEER COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats bushels of.
Almont,	4,379	452	$36,756	18,632		1,601	18,616
Attica,	548	259	7,030	3,303	80	4,585	2,012
Dryden,	2,217	706	23,901	14,115	473	11,400	7,292
Elba,	823	205	7,102	5,734	152	2,790	2,150
Hadley,	1,639	425	26,613	10,190	224	6,026	4,929
Imlay,	125	40	1,853	195		570	859
Lapeer,	4,314	639	33,609	15,808	480	13,828	8,232
Marathon,	200	116	3,420	1,248	50	1,625	1,990
Metamora,	2,095	535	22,542	14,401	435	9,195	6,265
Oregon,	122	58	2,195	1,205	105	885	590
	16462	3,435	165,021	84,831	1999	52,505	52,935

LAPEER COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
75	898	19,533	7,584	638	35,467	7,217	1,365	17	19,497
10	538	2,020	1,236		8,871	750	299		5,515
150	1782	4,263	4,934		27,248	4,400	991	25	7,504
	350	1,114	1,509	83	8,890	775	328	13	1,300
	876	3,182	3,634	297	17,878	1,500	794	15	1,419
	152	425	237		1,800	560	109		5,026
	1572	6,407	8,280	263	4,170	2,761	1,735	18	14,685
	248	1,040	514		3,350		140		3,040
221	1115	4,196	5,069	99	14,758	1,700	1,021	8	2,547
	317	458	272	11	3,551	50	67		
456	7,848	42,638	33,269	1391	125983	19,713	6,849	96	60,533

LAPEER COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
Almont,	$2517										
Attica,	656										
Dryden,	1,986										
Elba,	414										
Hadley,	1,302										
Imlay,	78										
Lapeer,	983										
Marathon,	370										
Metamora,	1,749										
Oregon,	202										
	10257	7	6	1	*	10,400	$51000	13	11	2	*

* Flouring mills and saw mills—capital invested in the business reported together, $55,000.

LAPEER COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
						Not reported.	Not reported.
5,400,000	$35,100	$78,650	106		126,695		

LENAWEE COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Adrian,	552		570	3,009	18	2		1	$777,890
Blissfield,	198		198	924	2				166,850
Cambridge,	188		188	974			2	2	201,455
Dover,	226		226	1,223		1			240,483
Fairfield,	241		241	1,327					293,470
Franklin,	232		232	1,231		1		1	225,450
Hudson,	285		285	1,544			1		287,345
Madison,	435		435	2,320	15				627,666
Medina,	301		301	1,685					322,635
Macon,	180		181	1,030	8				217,220
Ogden,	111		111	579					67,180
Palmyra,	196		196	1,098		3	1		213,430
Raisin,	227		232	1,267	8		3	4	343,100
Ridgeway,	114		117	634				1	109,700
Riga,*	31		31	208					15,230
Rollin,	213		213	1,080	9		1	2	168,800
Rome,	284		284	1,528	3			2	370,100
Seneca,	203		203	1,092	1				196,650
Tecumseh,	515		515	2,678	7	4	2	5	650,209
Woodstock,	179		179	949	20		1	1	176,485
	4,911		4,938	26,380	91	11	11	19	$5,671,348

* Productions of agriculture in the township of Riga enumerated with those of the township of Ogden.

LENAWEE COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
172	10,962	8,193	$370,700	$16263	414		625	196	806
123	5,498	6,445	165,100	11,820	227		359	168	538
100	6,146	6,833	154,495	5,265	192	1	253	63	365
164	8,246	8,458	238,470	13,471	379		503	195	732
164	8,375	8,695	233,900	15,360	208		512	217	751
134	9,427	7,747	269,500	7,922	317	1	412	110	659
117	5,340	5,840	170,750	7,908	161		304	158	481
153	9,715	8,961	374,000	19,270	312		487	206	634
157	8,282	9,008	248,400	11,239	223		467	260	621
137	6,554	8,325	134,000	7,950	241		425	112	514
66	2,669	4,174	67,700	4,835	128		197	94	306
94	4,715	5,903	163,400	10,218	180		297	115	474
169	11,233	9,308	331,550	14,613	374		504	149	607
71	3,768	3,396	104,800	5,527	164		221	84	339
106	5,070	5,723	130,000	7,343	184		273	121	355
184	10,053	8,351	281,600	13,820	314		598	221	757
123	6,497	7,247	169,850	10,612	184		366	158	500
142	10,042	7,518	347,990	13,952	357	1	459	92	489
95	5,739	6,767	146,200	4,136	193	1	268	73	393
2471	138,331	136,892	4,102,405	201524	4752	4	7530	2792	10,321

LENAWEE COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls.	Oats, bushels of.
Adrian,	6,913	1,012	$53,782	22,282	192	23,860	17,807
Blissfield,	1,253	597	30,640	8,190		27,265	7,862
Cambridge,	3,789	422	24,682	14,014	351	11,390	7,559
Dover,	5,086	877	39,150	19,220		24,280	12,507
Fairfield,	3,116	897	41,644	17,311		31,554	9,434
Franklin,	6,757	513	41,307	23,733	475	17,510	8,380
Hudson,	1,872	549	23,094	11,887		16,105	6,801
Madison,	4,822	649	47,485	23,001		29,599	12,667
Medina,	2,486	818	34,488	22,786		24,635	9,538
Macon,	3,387	815	31,079	17,167	25	20,585	7,692
Ogden,	777	308	15,988	3,803		12,115	4,151
Palmyra,	2,667	375	24,625	6,228	300	19,067	4,782
Raisin,	4,642	884	41,483	25,142	819	24,693	13,759
Ridgeway,	1,263	396	17,791	9,201		15,420	4,524
Riga,							
Rollin,	2,291	503	22,866	11,010	401	12,475	7,479
Rome,	4,956	938	44,873	18,554	70	26,235	15,727
Seneca,	2,636	584	26,630	14,008	98	20,540	4,564
Tecumseh,	9,595	593	44,854	31,917	134	25,055	12,988
Woodstock,	2,077	424	22,788	14,075	370	11,163	9,110
	70385	12154	629,244	313529	3235	393546	177,331

LENAWEE COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
406	2,269	7,264	20,578	1049	46,565	15,220	3,198	163	9,375
10	1,015	12,124	4,696	629	25,045	3,430	1,663		3,810
291	2,051	3,872	9,698	125	16,045	1,370	2,050	64	375
66	2,805	7,743	13,762	155	31,012	9,700	2,265	211	19,524
40	2,206	7,987	8,585		35,805	6,040	2,314	62	18,335
10	3,309	17,115	4,237	222	25,960	5,760	2,435	162	2,460
154	1,727	6,529	5,386	89	20,730	5,790	1,431	16	18,250
15	2,086	11,016	12,924	988	37,965	9,655	2,324	313	4,008
	1,266	7,074	7,603	10	31,200	3,800	1,781	230	22,198
20	2,757	3,266	9,133	25	20,515	7,051	1,634	198	9,108
	444	2,381	2,491		13,150	2,450	793		6,535
	1,319	8,805	7,445	751	20,610	5,080	1,401	35	1,430
31	2,872	10,287	13,706	1181	37,465	10,194	2,192	313	3,350
	1,170	2,139	3,704	89	15,570	2,480	968	57	4,045
	1,214	4,304	6,761	466	19,995	3,695	1,077	158	5,715
704	2,741	7,296	15,827	436	45,975	24,945	2,375	87	15,161
	2,552	5,024	7,287	20	24,260	9,045	1,752	95	9,215
184	2,670	8,086	14,799	160	31,300	4,640	2,416	332	
75	2,130	5,730	4,777	35	16,270	2,595	1,314	75	22
2006	38603	138042	173399	6430	515437	132940	35383	2571	152916

LENAWEE COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam	
Adrian,	$2003	5	4	1	$41000	15,000	$61300	2	2		$1,200
Blissfield,	675	1	1		6,000	1,800	7,500	1	1		2,200
Camb'dge,	609										
Dover,	1551							2	1	1	2,500
Fairfield,	2409							1		1	2,000
Franklin,	1280										
Hudson,	1229	1		1	10,000	700	2,800	1	1		2,000
Madison,	1451							3	2	1	3,800
Medina,	1403	2	2		20,000	3,600	16,000	2	1	1	4,500
Macon,	1063										
Ogden,	597										
Palmyra,	576	1	1		12,000	3,300	14,500	3	2	1	9,500
Raisin,	2192	1	1		10,000	8,233	32,900	2	1	1	3,800
Ridgeway,	472							1		1	1,900
Riga,											
Rollin,	1675	2	2		11,000	3,100	13,700	2	2		1,100
Rome,	2281							1		1	2,000
Seneca,	1173							1	1		1,500
Tecumseh,	546	3	3		105500	21,500	96,000				
Woodst'k,	689	1	1		21,000	*	90,365				
	23874	17	15	2	236500	57,233	335065	22	14	8	$38000

* Not stated.

LENAWEE COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By Assistant Marshals.
400,000	$1,200	$127,000	213	37	253,528	$270,000	$360,000
600,000	4,000	11,200	13		17,950	74,454	93,067
		1,700	5		2,350	60,000	75,000
500,000	3,800	2,500	4		3,800	118,278	147,847
900,000	5,400	2,550	6		7,400	127,437	159,296
						98,000	122,000
200,000	1,600	24,700	27		26,650	89,953	112,441
700,000	5,100	5,000	9		8,000	244,301	305,376
600,000	3,900	36,350	42		51,200	131,583	164,478
		1,000	6		2,055	62,000	67,500
						61,376	76,720
840,000	6,100	22,500	20		23,900	108,676	135,845
900,000	1,950	13,800	10		39,750	134,000	178,500
600,000	1,500	2,050	4		2,150	54,000	72,000
						44,111	55,138
600,000	1,600	12,700	9		21,600	72,000	96,000
600,000	1,200	2,000	2		1,200	106,000	141,000
300,000	1,600	2,900	4		6,650	99,012	123,765
		184,900	162		226,308	264,000	328,750
		21,000	3		90,365	58,000	70,000
7,740,000	$38,950	$473,850	539	37	784,856	2,277,181	$2,884,723

LIVINGSTON COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of Inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Brighton,	167		167	1015				1	$309,075
Conway,	78		78	460					65,050
Deerfield,	152		152	882					166,050
Genoa,	124		125	754					132,180
Green Oak,	157		157	941		2	1		223,200
Hartland,	175		175	996			1		186,860
Howell,	219		220	1155			1		217,970
Hamburg,	157		157	895					205,425
Handy,	87		87	484				1	62,150
Iosco,	117		117	645		1	1		132,020
Marion,	147		148	873					138,520
Osceola,	168		168	960			1		143,800
Putnam,	180		180	977			1	1	210,995
Tuscola,	102		102	544		1			84,580
Tyrone,	149		149	867					147,970
Unadilla,	187		188	1027					231,400
	2,366		2,370	13,475		4	6	3	$2,657,245

LIVINGSTON COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
106	8,430	8,249	$198,200	$10390	206	7	341	219	361
59	3,003	4,478	65,400	3,663	61		158	117	208
112	6,969	8,027	150,500	8,390	133		322	231	425
105	5,967	8,457	133,750	7,991	161		278	198	286
132	9,330	9,448	219,560	9,965	217		375	251	319
127	7,272	8,977	163,300	9,011	143		320	258	318
94	4,373	4,171	109,800	5,779	100		239	189	231
120	7,782	8,222	174,800	9,015	199		349	208	362
43	2,485	3,227	48,850	2,385	24		100	89	109
83	5,791	7,028	113,500	5,875	90		258	196	275
114	9,427	9,915	145,160	7,686	143	1	286	259	290
134	7,164	8,356	146,700	8,340	123		353	316	381
125	6,171	8,574	202,550	9,232	209		329	234	319
58	3,070	6,379	70,700	4,050	64		156	143	173
105	6,098	6,822	133,100	7,075	128		284	236	353
136	10,530	9,417	211,600	10,528	216		383	277	357
1653	103,862	119,747	2,287,470	119375	2217	8	4531	3421	4,767

LIVINGSTON COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats bushels of.
Brighton,	3,314	603	$31,860	23,272	1610	13,350	6,181
Conway,	672	310	12,725	7,758		6,625	3,995
Deerfield,	2,203	675	27,420	21,472	1822	11,919	6,160
Genoa,	1,914	521	23,639	15,891	786	10,625	6,590
Green Oak,	3,112	627	33,231	29,435	2644	17,310	3,374
Hartland,	2,484	628	28,067	19,831	1930	9,935	5,177
Howell,	1,481	393	17,353	11,016	588	8,617	8,688
Hamburg,	2,313	495	27,860	22,273	1091	13,995	2,289
Handy,	397	252	7,455	5,565	70	4,010	2,440
Iosco,	1,295	428	19,710	19,489	185	7,175	5,629
Marion,	2,020	556	23,455	20,463	356	13,100	5,365
Osceola,	2,626	1230	29,723	19,185	1974	11,715	7,031
Putnam,	2,536	560	29,489	30,455	572	17,065	3,605
Tuscola,	915	334	12,900	8,749	292	4,130	3,355
Tyrone,	1,920	531	24,365	17,841	1554	8,385	6,993
Unadilla,	3,080	597	32,826	30,899		15,241	10022
	32282	8,740	382,078	303594	15474	173197	86894

LIVINGSTON COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
170	2,398	9,251	9,467	454	25,870	4,950	2,015	173	
15	869	2,911	1,823		10,360	3,050	562		6,320
65	2,672	5,022	5,846	35	22,865	930	1,159	19	
100	3,309	6,891	5,202	127	19,430	2,700	2,970	63	
80	2,139	9,184	9,169	384	25,345	880	1,624	131	
75	2,801	7,693	6,690	163	23,745	1,490	1,655	132	
40	2,267	5,070	3,705	52	13,615	860	521	57	250
	1,398	7,831	6,608	123	24,085	2,230	2,180	126	
	1,621	2,203	1,080		8,000	100	441		7,590
34	2,850	4,447	3,648		17,625	1,340	1,290	17	1,680
212	4,154	6,279	5,869	85	15,490	1,330	1,684	73	
15	4,799	6,586	7,122	270	24,840	1,735	1,893	37	
	3,658	7,118	6,713	89	20,310	5,180	1,590	69	
	2,062	3,810	2,357		11,275	1,475	950	22	
450	3,110	4,598	5,414	142	17,685	3,450	1,479	41	
240	4,050	11,418	8,973	221	27,705	1,405	2,589	152	
1496	44157	100312	89,686	2145	308245	32,105	24602	1112	15,840

LIVINGSTON COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
Brighton,	$1419	2	2		$17000	7,600	$30800	1	1		$1,000
Conway,	710										
Deerfield,	1,445										
Genoa,	1,352										
G. Oak,	996	1	1		5,000	2,400	9,600				
Hartland,	2,065	2	2		11,000	6,775	28,600				
Howell,	1,140							1	1		500
Hamburg,	1,649	3	3		10,500	3,200	12,300	1	1		1,000
Handy,	755							2		2	6,000
Iosco,	1,058							1		1	2,500
Marian,	1,557							1	1		500
Osceola,	1,720										
Putnam,	1,638	2	2		11,000	6,000	24,000				
Tuscola,	970										
Tyrone,	1,630										
Unadilla,	1,547	1	1		6,000	800	3,200				
	21751	11	11		$60500	26,775	108500	7	4	3	$11500

LIVINGSTON COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
87,000	$700	$21,300	15		$41,873		
		5,000	1		9,600		
		11,000	4		31,750		
250,000	1,750	10,850	29½		23,050		
90,000	630	15,500	9		17,276		
2,100,000	13,300	6,000	7		13,300		
600,000	4,200	2,500	3		4,200		
100,000	850	700	2		1,415		
		11,850	12		32,382		
		6,150	4		5,388		
3,227,000	21,430	$90,850	86½		180,240	$755,917	$1,133,725

MACOMB COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Armada,	200		201	1,146				2	268,305
Bruce,	248		257	1,555	1		1		380,585
Chesterfield,	159		161	1,002	7				143,380
Clinton,	357		363	2,130	6			5	344,075
Erin,	178		182	974			2		107,475
Harrison,	83		83	483					91,680
Lenox,	115		118	654					63,900
Macomb,	139		139	757	13				119,805
Richmond,	173		174	1,000					128,175
Ray,	216		216	1,232			1		213,005
Shelby,	254		262	1,482					334,230
Sterling,	148		151	876					151,300
Washington,	260		267	1,541		1			453,820
Warren,	134		137	700					72,575
	2,664		2,711	15,532	27	1	4	7	2,872,310

MACKINAC COUNTY.

Holmes, Moran, St. Ignace,	581		607	3,597	31				301,094

MARQUETTE COUNTY.

Marquette,	18		18	136					$4,350

MACOMB COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
135	7,600	9,711	$222,880	$12406	230	1	486	215	657
136	11,859	9,128	318,330	12,593	351		471	146	638
103	3,590	5,589	108,480	5,455	191		376	151	446
78	3,777	8,609	115,150	4,725	130	1	268	111	273
43	1,639	2,773	84,600	2,805	112		108	37	123
38	1,926	3,781	72,850	2,860	109		132	64	94
79	2,637	5,147	51,700	3,830	74		291	128	253
80	3,187	6,098	97,925	5,070	165		203	98	311
130	5,507	7,087	123,550	8,503	149		365	188	450
131	5,853	8,000	158,098	10,535	219		389	176	526
137	10,829	7,853	348,530	11,888	294		464	107	539
82	4,314	5,017	120,750	5,672	108		289	70	280
116	10,805	8,463	364,500	13,080	349		460	70	550
29	1,260	2,276	35,500	2,080	59		105	14	101
1317	74,783	86,532	2,222,843	101502	2540	2	4407	1575	5,241

MACKINAC COUNTY—*Continued.*

14	554	1,776	15,800	866	22		56	20	58

MACOMB COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats, bushels of.
Armada,	5,191	1,112	34,820	8,615	110	20,070	25,186
Bruce.	5,682	769	44,520	34,986	430	20,695	16,024
Chesterfield,	1,776	569	20,416	5,716	14	9,008	8,165
Clinton,	1,245	481	14,833	4,284	10	9,130	7,087
Erin,	445	280	8,307	2,810	455	4,609	7,166
Harrison,	539	217	8,670	2,679	125	2,933	4.062
Lenox,	1,111	396	12,330	1,910		7,590	8,280
Macomb,	1,248	447	15,472	2,685	90	9,820	8,600
Richmond,	1,883	807	23,627	5,194	28	17,320	19,214
Ray,	2,468	740	28,785	5,559	20	15,950	13,928
Shelby,	5,918	571	38,019	25,286	726	40,073	9,850
Sterling,	1,521	370	16,680	4,416	49	12,695	12,938
Washington,	6,192	694	39,307	27,436	200	26,983	12,786
Warren,	363	140	6,110	560	30	3,430	4,348
	35582	7,593	311,896	132136	2287	160306	157634

MACKINAC COUNTY—*Continued.*

Holmes, Moran, St. Ignace,		46	3,035				770

MACOMB COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
110	2,607	5,696	11,632	729	23,916	7,410	2,029	19	11,440
652	2,141	2,231	16,270	996	23,115	9,265	1,995	32	2,255
14	510	3,490	4,660	616	21,600	1,800	686	3	2,524
	1,173	2,980	2,885	445	13,815	900	1,145	4	2,580
720	300	1,853	1,201	12	7,325		501		
399	675	1,012	1,418	225	7,500		446		
	1,188	1,849	2,800		15,700	7,900	926		5,220
	1,557	3,291	3,932	265	14,785	1,450	1,113	3	1,420
180	2,403	4,390	4,440	10	17,370	2,350	1,295	5	10,235
	1,545	4,523	7,338	1422	29,672	4,845	1,837	27	16,015
	2,415	12,174	19,509	1554	28,940	3,548	1,928	186	1,420
	1,089	3,679	4,582	319	17,885	1,450	1,210	13	6,430
135	3,024	5,775	19,495	2841	28,710	11424	2,150	122	5,835
	376	1,967	895	117	6,485	100	456		2,405
2,210	21003	59,910	101057	9551	256818	52442	17717	414	67,779

MACKINAC COUNTY—*Continued.*

	20	4,455		300	1,200		96		1,100

MACOMB COUNTY—*Continued.*

TOWN'S.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bls. flour made.	Value of.		Water.	Steam.	
Armada,	$5814										
Bruce,	1904	2	2		$10000	12,000	55,000				
Chesterf'd	3756										
Clinton,	1983										
Erin,	328										
Harrison,	810										
Lenox,	3821										
Macomb,	2480										
Richmond	3609										
Ray,	6760										
Shelby,	1673										
Sterling,	794	1	1		10,000	7,700	*	1	1		*
Wash'gt'n	1566										
Warren,	201										
	35499										

MACKINAC COUNTY—*Continued.*

Holmes, Moran, St. Ignace,								15	10	5	152500

* Not stated.

MACOMB COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invested in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
						$63,766	$191,298
		$17,000	31	2	$68500	88,931	266,793
						46,990	140,970
						106,391	319,173
						31,426	94,278
						25,132	75,396
						40,338	121,014
						50,287	150,861
						46,048	138,144
						64,604	193,812
		6,900	22	2	16,300	88,655	265,965
150,000	*	15,000	12		47,500	48,687	146,061
		12,000	41		26,100	97,973	293,919
						31,237	93,711
						$830,465	$2,491,395

MACKINAC COUNTY—*Continued.*

20,250,000	109,550	$176,381	422		206,481	$169,279	$169,279

MONROE COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Ash,	199		199	1229	4				$165,690
Bedford,	155		155	889			1		146,625
Dundee,	220		222	1239	1		1	1	146,140
Erie,	197		197	1144		1	1		206,055
Exeter,	76		76	458				1	58,050
Frenchtown,	205		205	1242		3	2	1	174,111
Ida,	64		65	345					49,330
Lasalle,	191		191	1100	1				182,380
London,	105		105	626			2		88,755
Milan,	123		123	642					89,040
Monroe, (town,)	144		147	837	8		1		125,530
Monroe, (city,)	476	476	490	2809	39	2	2		504,338
Raisinville,	166		166	967		1	2		180,564
Summerfield,	89		89	472		1		1	92,140
Whiteford,	126		126	696	1				100,700
	2,536	476	2,556	14,695	54	8	12	4	$2,309,448
MASON COUNTY.									
Mason,	12		12	93					19,400
MIDLAND COUNTY.									
Midland,	10		10	65					4,195
MONTCALM COUNTY.									
Eureka,	80		80	461					62,550
Fairplain,	45		46	229					30,950
Montcalm,	25		25	135					25,600
Bushnell,	14		14	66					3,150
	164		165	891					122,250
NEWAYGO COUNTY.									
Newaygo,	92		92	510					54,250

MONROE COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
117	3,684	6,570	$93,670	$9,357	259		329	165	342
94	6,026	5,634	145,140	9,330	232		289	152	330
126	4,661	6,199	129,300	9,385	150		395	172	539
110	6,389	4,736	191,880	9,960	369		326	172	406
63	2,047	5,222	55,000	4,693	100		226	105	317
117	4,128	6,567	120,090	9,748	230		367	255	392
46	2,067	2,973	40,200	4,030	120		167	82	253
114	5,992	5,938	171,310	11,689	305		371	152	444
71	2,286	5,568	72,450	5,923	102		231	132	329
78	3,483	5,123	79,740	7,555	105		235	118	310
80	4,090	4,322	121,350	9,310	261		265	158	313
19	1,613	2,348	66,900	2,455	66		78	36	84
122	6,005	12,659	183,323	12,110	303		398	187	527
46	2,202	2,531	55,900	5,716	104		175	66	311
81	2,856	4,829	53,960	6,666	128		209	94	213
1284	57,529	81,219	1,580,213	117927	2835		4061	2046	5,110
MASON COUNTY—*Continued.*									
MIDLAND COUNTY—*Continued.*									
4	207	1,281	$13,575	$525	9		10	16	15
MONTCALM COUNTY—*Continued.*									
26	1,711	3,408	35,400	$2,020	49		72	63	66
NEWAYGO COUNTY—*Continued.*									
12	646	699	8,200	725	7		26	26	28

MONROE COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls.	Oats, bushels of.
Ash,	1,143	1,227	$23,762	8,027	159	9,340	6,376
Bedford,	1,502	632	21,881	9,329		13,741	6,936
Dundee,	1,545	787	24,062	8,401	68	22,015	7,332
Erie,	2,412	993	30,340	18,741		15,710	2,435
Exeter,	613	455	12,842	3,334	135	7,770	4,153
Frenchtown,	1,458	1,261	23,607	9,787	153	14,197	6,714
Ida,	820	465	12,322	2,521	9	9,990	5,391
Lasalle,	1,931	973	26,036	13,597	15	23,065	11,220
London,	749	412	13,901	2,228	260	7,592	2,417
Milan,	1,135	547	14,891	2,885		11,785	3,754
Monroe, (town,	1,960	962	20,634	9,786	96	14,499	10,548
Monroe, (city,)	562	190	5,946	3,618		5,475	2,666
Raisinville,	2,853	1,229	29,379	10,040	20	23,745	13,142
Summerfield,	713	379	12,046	4,569	82	9,399	3,392
Whiteford,	529	472	14,659	7,477		11,000	3,359
	19925	10984	286,308	114340	997	199323	89,835
MASON COUNTY—*Continued.*							
Mason,							
MIDLAND COUNTY—*Continued.*							
Midland,	37	40	$1,294	300		1,650	200
MONTCALM COUNTY—*Continued.*							
Eureka, Fairplain, Montcalm, Bushnell,	469	158	$6,575	3781	340	4570	2660
NEWAYGO COUNTY—*Continued.*							
Newaygo,		130	$2,275	327		5200	380

MONROE COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
58	1,440	3,710	3,335	4654	10,795	1,990	1,479	9	1,400
20	1,643	11,020	3,855	210	24,930	3,600	1,292	20	
	1,998	5,307	4,411	245	28,297	14,610	2,020	15	10,380
986	1,3-5	5,361	7,156	95	21,910	800	1,194	20	
	1,787	3,511	1,242		19,610	874	1,046		1,125
150	1,717	6,015	3,662	103	18,845	450	1,742	2	
205	1,794	3,324	2,526		11,895	600	894	2	
522	2,252	7,270	5,591	205	27,462		1,456	125	
10	876	5,534	1,899	387	15,610	3,750	1,383	5	2,670
30	813	3,025	3,991	312	18,880	6,350	1,019		8,058
257	1,388	5,141	5,526	825	14,970	1,200	1,080		
85	148	1,385	2,176	390	5,435		598		200
485	2,449	6,494	7,767	180	21,155	2,220	2,216	26	
	704	4,750	2,406	690	4,060	5,200	784	50	1,185
421	380	6,275	1,555	45	16,615	850	797	7	1,150
3229	20774	78,122	57,098	8341	260469	42,494	19000	281	26,168

MASON COUNTY—*Continued.*

MIDLAND COUNTY—*Continued.*

		750	128		600		50		

MONTCALM COUNTY—*Continued.*

}	1,075	3,590	942		5,580		199		

NEWAYGO COUNTY—*Continued.*

	883	2,380			1,825		162		

MONROE COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.							Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.			Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.			Water.	Steam.	
Ash,	$769								1		1	$2,000
Bedford,	817											
Dundee,	1,378	1	1		$8,000	4,075	$17318		2	2		2,800
Erie,	324											
Exeter,	689								1	1		1,500
Frencht'n,	482								1	1		7,100
Ida,	606											
Lasalle,	830								1	1		1,500
London,	754											
Milan,	894								2		2	5,000
Mon. (t'n,)	598											
Mon. (city)	40	1	1		78,500	16,000	76,000					
Raisinv'le,	95								2	2		7,000
Sum'rfi'ld,	805								1	1		400
Whiteford,	496											
	$9577	2	2		$86500	20,075	$93318		11	8	3	$27300

MASON COUNTY—*Continued.*

Mason,									1		1	$15000

MIDLAND COUNTY—*Continued.*

Midland,												

MONTCALM COUNTY—*Continued.*

Eureka,									2	2		$6,000
Fairpl'n	$253								1	1		2,000
Montcalm,									3	3		19,000
Bushnell,												
									6	6		$27000

NEWAYGO COUNTY—*Continued.*

Newaygo,	$20								3	3		$23700

MONROE COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
1,000,000	$10,000	$3,100	4		$12,270	$59,584	$59,584
		900	4		2,700	68,303	68,303
300,000	1,800	16,200	13		32,698	59,329	59,329
		1,350	3		1,850	75.447	75,447
150,000	750	1,500	3		750	28,073	28,073
800,000	5,600	7,500	23		6,977	70,540	70,540
						31,160	31,160
150,000	1,100	1,500	1		1,100	58,596	58,596
						29,727	29,727
770,000	4,100	5,500	8		4,900	34,509	34,509
						58,400	58,400
		100,800	78	1	128,265	314,496	314,496
1,350,000	7,380	7,000	11		7,380	78,930	78,930
300,000	2,100	400	5		2,100	26,481	26,481
		400	2		450	38,126	38,126
4,820,000	$32,830	$146,100	155	1	201,440	1,031,701	$1,031,701

MASON COUNTY—*Continued.*

3,000,000	$16,500	$16,900	45		$22,200		

MIDLAND COUNTY—*Continued.*

MONTCALM COUNTY—*Continued.*

1,900,000	$7,600	$6,000	18		$7,600		
590,000	2,500	2,000	5		2,500	Not reported.	Not reported.
3,600,000	15,900	19,000	57		19,000		
6,000,000	$26,000	$27,000	80		$29,100		

NEWAYGO COUNTY—*Continued.*

6,500,000	$31,550	$27,850	109		$48,662		

OAKLAND COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Addison,*	159		159	924					$201.760
Avon,	272		276	1.456					401,370
Bloomfield,	291		293	1,603	8	2		2	404.900
Brandon,*	178		178	893					155,298
Commerce,	298		298	1,428			2		326,700
Farmington,	331		331	1,844	1		2		510,110
Groveland,*	187		187	988					188,030
Highland,	157		158	851					189,708
Holley,*	192		192	941					216,465
Independence,*	243		243	1,279		1			283.365
Lyon,	208		208	1,134				3	283.725
Milford,	286		286	1,470					292.900
Novi,	256		256	1,428					375,835
Oakland,	171		171	978	2			1	308,080
Orion,	205		207	1,119				1	180,620
Oxford,*	193		193	1,019					218,410
Pontiac,	488		501	2,819	19	1		1	689,115
Rose,*	167		167	886					154,250
Royal Oak,	198		198	1,092	26				202,900
Southfield,	101		101	1,658				3	354,750
Springfield,*	186		186	956					199,990
Troy,	249		256	1,426	3		1		662.640
Waterford,	184		196	1,085	1			5	367,275
White Lake,	168		168	905					186,315
West Bloomfield **	189		192	1,085		2			264,550
	5557		5,601	31,267	60	6	5	16	$7,619,091

** Aggregate 35th district, composed of the townships marked thus *.

OAKLAND COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
155	12,473	8,811	$405,915	$22150	450		550	253	588
174	11,539	9,389	391,951	17,452	374		554	261	576
152	11,437	8,998	288,200	24,087	252		455	257	396
192	14,210	9,053	440,00	22,395	485		757	579	667
120	7,885	9,412	187,885	15,435	149		282	240	292
134	10.243	7.581	283,550	14,565	308		421	323	490
110	7,727	6,279	190,800	12,692	225		232	155	310
149	11,122	10,164	348,250	18,545	354		495	202	568
142	11,026	8,433	295,600	22 747	286		439	265	444
134	9,661	8,519	234,560	19,639	219		372	252	427
176	9,960	8,934	389,950	21,362	350		529	311	390
82	4,490	4,471	175,600	10,715	199		313	231	318
131	8,117	6,876	272,900	17,750	319		613	382	516
199	12.006	9,996	442,330	19,130	556		783	256	760
141	8,840	9,241	287.600	17,866	262		384	184	315
137	6,962	8,410	168.150	15,014	149		308	287	295
165	9,601	8.3.1	291,700	13,384	273		451	274	435
1066	67,129	66,699	1,446,748	80,946	1297	1	2659	2212	2821
3559	234,428	209,574	6,541,689	385874	6507	1	10567	6924	10608

OAKLAND COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls.	Oats, bushels of.
Addison,*							
Avon,	7252	1107	$51,637	31,639	1581	29760	12880
Bloomfield,	5878	845	47,080	37,648	628	18115	15656
Brandon,*							
Commerce,	4156	665	38,741	32,814	2357	19825	7806
Farmington,	9280	1049	62,878	30,149	240	41131	26169
Groveland,*							
Highland,	2232	691	24,153	19,890	3368	12382	2871
Holley,*							
Independence,*							
Lyon,	4242	692	39,329	29,992	1635	23995	9010
Milford,	2843	498	30,170	23,612	2370	15495	5215
Novi,	5340	672	48,387	31,190		29310	18285
Oakland,	3495	761	37,130	33,056	1857	20070	5577
Orion,	12067	649	31,813	21,788	1850	13768	6285
Oxford,*							
Pontiac,	5355	1008	44,733	22,649	870	18789	9937
Rose,*							
Royal Oak,	2273	453	23,060	6,427	589	15860	14512
Southfield,	5311	714	44,270	18,194	530	28233	21545
Springfield,*							
Troy,	9991	1016	63,146	15,692	435	36130	34582
Waterford,	4293	733	33,364	20,553	1385	17457	6761
White Lake,	2458	522	24,231	16,643	1098	11264	5915
West Bloomfield	5113	701	38,031	31,953	1689	17883	6641
	22225	4857	238,120	179900	7372	109991	70891
	113894	17633	920,273	603789	29854	479458	280538

** Aggregate 35th district, composed of the townships marked thus *,

OAKLAND COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
840	3417	9583	17636	3731	29809	14850	2911	229	
581	2745	9528	16625	2918	46705	7630	3385	575	550
252	2230	12008	10092		41040	2000	2256	82	
162	1431	11040	27096	879	45472	129185	3595	24	11135
170	1835	9367	6985	260	25115	400	1268	74	
305	1677	11593	11366		31560	2000	2061	78	5250
		15665	6355		26320		1495		
	995	5612	24743	1175	35655	4370	2381		26180
29	6185	4956	11229	972	37225	1600	1933	358	
60	6343	10039	9325	579	30889	1850	1815	183	
443	2975	11494	13211	3789	41665	4439	3211	215	
360	1054	6380	5345	140	32500	2880	1214	19	750
	1282	14250	15321	125	54675	3900	2352	118	1925
2339	1887	6138	28818	3504	53870	18820	3542	104	8705
578	2748	10501	11986	2778	31675	2870	1985	145	
49	8773	7355	7043	538	19630	940	1186	37	
100	2892	6380	16186	1866	37855	4075	1764	225	1950
797	29535	50619	60228	1218	256196	19343	13780	662	6652
7065	78004	212508	299590	24472	877856	221152	52134	3128	63097

OAKLAND COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills. Number of.	Power used. Water.	Power used. Steam.	Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct Bbls. flour made.	Annual prod'ct Value of.	Saw Mills. Number of.	Power used. Water.	Power used. Steam.	Cap'l invest'd in re'l & personal estate in the business.
Addison,*											
Avon,	$1795	4	4		$21000	†	†	3	3		$1,900
Bloomfi'ld	1272	3	3		21,500	†	†				
Brandon,*											
Commerce	433	2	2		16,000	5,800	$22000				
Farm'gton	1669	3	3		20,000	6,000	14,000				
Gro'land,*											
Highland,	1061										
Holley,*											
Ind'p'd'e*											
Lyon,	573										
Milford,	345	2	2		17,000	13,400	48,000				
Novi,	1595										
Oakland,	2345	1	1		2,000	†	†				
Orion,	1559	3	3		27,000	†	†	1		1	3,000
Oxford,*											
Pontiac,	3626	3	3		33,000	15,200	64,600	2	2		1,800
Rose,*											
RoyalOak,	187										
Southfield,	1400	2	2		13,000	5,000	20,000				
Spri'gfi'd*											
Troy,	2479							2	†	1	4,500
Waterford	917	2	2		14,000	4,666	20,772				
W. Lake,	1358							1	1		1,200
W. Bl'fi'd,	1600										
**	9381	2	2		17,000	10,000	36,000	1	†	†	650
	33595	27	27		201500	60,066	225372	10	6	2	$13050

** Aggregate 35th district, composed of the townships marked thus.*
† Not stated.

OAKLAND COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By Assistant Marshals.
300,000	$2,000	$46,100	25		$43 557	$139,168	$417,505
		41,350	56		45,726	124,961	374,883
		16,000	4		22,000	92,889	123,852
		20,000	5		14,000	164,585	219,446
						58,241	164,723
						113,699	150,265
		17,000	6		48,000	90,453	120,604
						140,417	187,196
		2,150	*		1,015	88,511	265,533
400,000	2,800	33,450	21		19,112	73,977	221,931
480,000	3,180	71,830	82	30	395,487	256,978	770,934
						56,153	74,870
		13,000	4		20,000	86,252	115,002
1,600,000	12,800	7,490	26		22,685	135,461	406,383
		16,025	10		24 977	80,701	242 103
200,000	1,200	1,910	3		4,622	55,778	167,334
		200	1		750	81,657	244,971
100,000	800	34,050	43		51,125	440,763	1,569,518
3,080,000	$22,780	$250,555	286	30	713,056	2,280,644	$5,837,052

* Not stated.

OTTOWA COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of Inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Allendale,	34		34	168					$23,650
Chester,	41		41	216					22,540
Crockery,	55		55	247				1	29,595
Georgetown,	41		41	196					21,115
Holland,	412		412	1829	1				91,600
Jamestown,	14		14	72					3,920
Muskegon,	86		86	484					75,870
Ottawa,	71		74	430	2				64,275
Polkton,	53		53	268		1			42,505
Ravenna,*	17		17	77					4,700
Spring Lake,*	101		104	545	32				43.680
Tallmadge,	100		100	534					96,330
Wright,	103		103	521				1	61,110
	1128		1,134	5,587	35	1		2	$580,890

OCEANA COUNTY.

Oceana,	58		58	300	19				$16,460

ONTONAGON COUNTY.

Ontonagon,	46		46	389	5				$81,250

Agricultural products not returned.

OTTOWA COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
5	117	343	$2,480	$165	7		22	13	28
10	303	933	9,500	280	4		23	20	37
6	106	699	4,500	295	2		13	16	9
14	404	1,836	15,500	445	7		41	24	93
62	1,032	6,186	34,002	1,371			168	70	220
6	91	659	2,650	215			22	6	29
1	8	12	200	10					
3	62	188	3,300	100			4	4	7
9	400	990	23,100	1,120	12		33	18	82
56	1,440	5,117	56,215	3,298	45		144	98	233
32	951	2,165	30,050	1,662	13		68	18	99
204	4,914	19,128	$181,497	$8,961	90		538	287	837

OTTOWA COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats, bushels of.
Allendale,	10	26	$1,298	40		660	170
Chester,	36	76	1,637	405		1,030	275
Crockery,		25	1,120			530	510
Georgetown,	22	133	2,452	460		1,416	360
Holland,	15	402	5,351	65	20	9,750	36
Jamestown,		52	963	85	25	310	300
Muskegon,							
Ottowa,		10	263		100	450	175
Polkton,	25	50	2,695	318		1,095	160
Ravenna,*							
Spring Lake,*							
Tallmadge,		412	1,020	1,260		6,253	596
Wright,	84	163	5,049	1,181	117	2,770	967
	192	1,349	$21,848	3,814	262	24,264	3,549

*Agricultural products not returned.

OTTAWA COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
		340	40		1,650		68		950
10	41	739	80		1,450		30		4,150
		700			650	200	59		550
	125	1,530			1,930		96		8,950
	157	1,190			7,890		5		1,610
	10	496			1,310		34		2,800
		300							
	35	300			250		5		
15		1,100	130	$10	2,200	500	318		2,450
	147	2,223	692	209	9,380	1,400	667	1	10,845
30	38	390	224		4,225		225		10,060
55	553	9,308	1,166	$219	30,935	2,100	1,507	1	42,365

OTTAWA COUNTY—*Continued.*

TOWN'S.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bls. flour made.	Value of.		Water.	Steam.	
Allendale,											
Chester,											
Crockery,								2	2		$7500
Georget'n,								2	2		2500
Holland,								2	1	1	5600
Jamesto'n,											
Muskegon,								8	2	6	79800
Ottawa,								1		1	6000
Polkton,	80										
Ravenna,*								1	1		5000
Sp. Lake,*								5		5	28000
Tallmadge	1,083							3	3		9630
Wright,	93										
	1,256							24	11	13	144030

OCEANA & MASON COUNTIES.

								4	2	2	$26600

* Agricultural products not returned.

OTTAWA COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invested in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
2,000,000	$12000	$8000	23		$13,812		
2,100,000	16800	2500	14		17,425		
2,100,000	16960	6600	19		17,960		
16,300,000	93000	82510	150		102,482		
3,000,000	19500	7500	23		22,750		
		1500	5		1,080		
2,500,000	12500	5000	6		12,500		
18,600,000	120900	29000	43		131,219		
2,720,000	15820	10930	40		18,320		
49,320,000	307,480	$153,540	323		337,548		
Reported as North part of Ottawa county,						135,056	270,112
Holland, Jamestown, Georgetown, Allendale, Ottawa and Spring Lake,						300,800	401,066
						435,856	671,178

OCEANA & MASON COUNTIES—*Continued.*

6,100,000	$32,000	$28,500	83		$37,700		

SAGINAW COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Bridgeport,	79		83	374					$25,259
Buena Vista,*	49		63	251					12,614
Hampton,*	113		116	546					49,418
Northampton,	24		24	122					7,530
Saginaw,	147		151	917					142,025
Taymouth,	10		10	58					3,825
Tittabawassee,	61		61	341					43,220
	483		508	2,609					$283,891

SANILAC COUNTY.

Lexington,†	216		216	1,176			1		$118,385
Sanilac,†	57		57	339					12,475
Worth,†	99		99	600					71,330
Huron, (co.,)†	48		48	207					20,360
	420		420	2,322			1		$222,550

SCHOOLCRAFT COUNTY.

Grand Island,	5		5	16					2,020

* Agricultural products not returned.
† Agricultural portion reported in the aggregate.

SAGINAW COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
9	327	1,347	$17,800	$665	13		35	14	80
5	249	437	5,575	590	12		26	13	57
26	1,343	2,885	43 210	2,065	73		120	56	126
2	70	226	2,200	50	4		10	4	9
37	951	2,996	36,191	1,854	43		98	57	115
79	2,940	7,89	$104,976	$5,224	145		289	144	387

SANILAC COUNTY—*Continued.*

88	3,612	4,944	$78,850	$4,391	78		248	192	272

SAGINAW COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats bushels of.
Bridgeport,	128	49	$2,544	620	58	1,200	435
Buena Vista,*							
Hampton,*							
Northampton,	46	30	2,938	230		2 650	75
Saginaw,	427	194	8,816	1,523	48	4,780	1,923
Taymouth,	11	11	441	170		250	110
Tittabawassee,	176	195	6,797	1,877		5,055	1,692
	777	479	$21,536	4,420	106	13,935	4,235

SANILAC COUNTY—*Continued.*

Lexington,†							
Sanilac,†							
Worth,†							
Huron (co.,)†							
	774	389	17,070	7,157	10	5,298	7,531

*Agricultural products not returned.
†Agricultural portion reported in the aggregate.

SAGINAW COUNTY—*Continued.*

th e year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
	48	1110	369		2000	450	194		780
150		415	115		950		22		1500
	582	2270	1309	45	6135	1270	478		930
		120			350		34		
30	369	272..	613		5140		356		7265
180	999	6635	2406	45	14,575	1720	1084		10,475

SANILAC COUNTY—*Continued.*

35	503	4246	2177		18415		1332		7,255

SAGINAW COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam	
Bridgep't	57										$16000
B. Vista,*								1		1	6500
Hampton*								2		2	
North'm'n								1	1		2000
Saginaw.	67							2		2	42500
Taymo'th											
Titab'w'se	294							2	2		5100
	418							8	3	5	$72100

SANILAC COUNTY—*Continued.*

Lexing'n,†											
Sanilac.†											
Worth.†											
Hur'n,(co)								‡			
	893	1	1		2000	800	4000	10	7	3	$58900

* Agricultural products not returned.
† Agricultural portion reported in the aggregate.
‡ Sanilac and Huron reported together.

SAGINAW COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By Assistant Marshals.
		$200	3		$1,000		
1 600,000	$19 000	16,000	30		19,000		
2,200,000	15.400	6,500	19		15,400		
800,000	4,800	2 000	4		4,800		
2,000,000	13,200	45,865	53		22,200		
375,000	2,450	5,100	4		2,750		
6,975,000	$54,850	$75,665	113		$65,150	$318,037	$397,546

SANILAC COUNTY—*Continued.*

6,725,000	$53,775	$66,000	99		$72,795	$130,638	$561,2.6

SHIAWASSEE COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Antrim,	53		53	282					$33,350
Bennington,	106		106	601					106,150
Burns,	129		129	717					124,745
Caledonia,	97		97	500					78,540
Hazleton.*	5		5	26					1,100
Middlebury,	28		28	132					15,200
N. Hav'n & Rush	24		24	150					21,100
Owasso,	76		76	392					67,400
Perry,	62		62	313					63,100
Sciota,	40		40	191					30,450
Shiawassee,	145		145	810					128,770
Venice,	34		34	186					24,450
Vernon,	124		124	674					98,140
Woodhull,	49		49	259					44,150
	972		972	5,233					$836,645

*Agricultural products not returned.

SHIAWASSEE COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
42	1,417	4,153	$35,900	$1891	23		99	104	113
97	4,856	6,983	112,600	4498	83		207	169	256
82	3,610	5,623	88,900	4290	79		196	146	253
56	1,872	4,800	59,900	2141	51		120	94	132
21	923	1,627	15,200	1250	10		41	65	62
24	690	2,394	20,900	905	27		58	48	61
35	1,325	3,137	37,450	1 65	29		76	57	116
52	2,667	5,495	56,100	2570	47		126	124	187
29	1,672	2,534	28,750	1267	24		74	68	135
117	4,261	6,616	108,975	5247	122		298	189	306
30	1,106	1,799	28,250	1380	16		64	57	80
119	4,508	6,957	97,190	4250	84		247	186	261
42	2,296	4,563	44,850	1685	59		95	78	100
746	31,203	56,681	$734,965	$32939	654		1701	1385	2,062

SHIAWASSEE COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats, bushels of.
Antrim,	354	145	6,964	2,396	160	28[illegible]0	1492
Bennington,	1148	504	17,905	15,668		8740	3798
Burns,	1029	422	16.492	8,936		5525	4803
Caledonia,	349	171	10,751	3,116	40	3641	1967
Hazleton,*							
Middlebury,	100	66	2,940	2,383	10	1375	585
N. Hav'n & Rush	128	96	4,426	725		2730	1130
Owasso,	249	118	5,879	2,381		2100	1531
Perry,	527	268	10,922	7,684		4802	2615
Sciota,	370	128	5,747	3,319		170[illegible]	1580
Shiawassee,	1106	592	20,260	1,045	140	9340	6658
Venice,	211	103	4,947	3,400		2315	780
Vernon,	1028	419	17,717	5,813	40	1979	3891
Woodhull,	488	230	8,789	4,968	250	4400	1875
	7087	3262	133,739	61,834	65[illegible]	56,505	32,705

* Agricultural portion not returned.

SHIAWASSEE COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed. bush's.	Maple sugar, lbs.
	148	887	968	12	6,365	775	406	5	430
205	1,329	4,732	3,381	161	15,687	1,[illegible]80	1,054	2	7,450
3	958	2,602	2,928	218	13,478	850	934		1 775
	759	2,250	1,218	62	8,192	675	539		4,785
	36	1,116	267		2,695		104		1,950
*									
	231	845	753	92	5 775	650	305	3	4,510
	65	2,[illegible]38	1,662	23	8,345	600	670	20	4,860
10	493	1,5 2	1,162		4,950	400	331		4,000
41	983	3,31	3,166	237	17,915	8,315	1,188	41	7,355
	146	891	646	10	4,185	25	151		3 585
	625	2,604	3,196	182	16,381	2 470	870	38	20,182
	511	3,584	1,391	44	6,855	360	584	1	275
259	6,284	26,475	21,738	1041	110823	16,400	7,136	110	61,157

* No further agriculuural returns from the townships of New Haven and Rush.

SHIAWASSEE COUNTY—*Continued.*

TOWN'S.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bls. flour made.	Value of.		Water.	Steam.	
Antrim,	$349							1	1		$1,000
Ben'ingt'n	1,394							1		1	2,000
Burns,	1,519	1	1		$13000	6,000	$24000	1	1		1,500
Caledonia,	386	1	1		6,000	1,500	4,500	2	2		3,500
Hazlet'n,											
Mid'l'b'y,	153										
N. H. & R											
Owosso,	323	1	1		9,000	2,200	7,150	1	1		2,000
Perry,	609										
Sciota,	300										
Shiawas'e,	1,412	2	2		3,000	2,000	750	1	1		500
Venice,	384										
Vernon,	1,421										
Woodh'l,	377										
	$8927	5	5		$31000	11,700	$36400	7	6	1	$10500

SHIAWALSEE COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invested in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
200,000	$1,200	$1 000	1		$1,200	$23,117	$41,004
300,000	2,240	2,300	5		3,660	31 047	124,742
200,000	1,400	21,500	20		42,035	39.127	138,933
400,000	2,400	15,500	14		21,090	38,654	88,881
						*	*
						15,465	18,329
						26,455	25,080
300,000	2,100	20,700	18		22,660	39,562	65,304
						18,581	74,132
						16,356	36,096
100,000	650	9,800	15		18,299	44,102	148,767
						17,350	31,427
		275	2		1,530	28,011	113,228
						16,124	45,425
1,500,000	$9,990	$71,075	75		110,474	$353,954	$951,948

* Not reported.

ST. CLAIR COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of Inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Berlin,	85		85	533					$63,350
Brockway,	45		45	252					17,020
Burchville,	84		84	472					60,700
Casco,	19		19	131					18,835
China,	169		169	1037					165,775
Clay,	149		149	821					95,415
Columbus,	63		63	377	1				43,150
Cottrelville,	172		172	913				1	84,220
Clyde,	117		117	691					95,530
Ira,	99		99	597					42,535
Lyn,*	8		8	55					6,560
Pt. Huron (vil.)	262		262	1584	15	2			295 500
Pt. Huron, (t'n)	109		109	717					78,200
Riley,	55		55	311					43,300
St. Clair,	334		334	1724	7	1			255,508
Wales,	44		44	189					14,050
	1817		1,817	10,411	23	3		1	$1,388,638

* Agricultural portion not reported.

ST. CLAIR COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
50	2,328	3,405	$49 400	$3,460	49		147	106	200
8	545	1,235	13 500	610	17		22	22	32
26	1,148	2,210	29.200	2,025	36		65	51	91
20	70	1,465	15,510	1,110	19		49	30	62
121	19,684	9,401	165 35	8 614	190		453	127	412
45	1,691	5,273	47,223	3,865	131		242	59	376
39	1,548	3,346	35,050	3,035	53		133	83	166
38	1.392	3,018	45,450	2,800	67		120	34	125
30	3,393	8,813	77,250	2.595	61		122	80	138
31	716	2,510	27 500	2,676	46		85	56	100
23	1,086	2.156	39 400	2,175	59		88	5	92
15	855	1.325	20,300	870	16		44	36	50
46	1.393	5.436	64.850	3,390	76		144	69	110
8	275	582	6 300	310	1		24	16	23
500	37,060	50,175	$636,283	$37535	821		1738	821	1,977

ST. CLAIR COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls	Oats, bushels of.
Berlin,	688	217	$8,179	3,283	50	5,975	8,946
Brockway,		25	2,115		200	505	2,285
Burchville,	180	73	4,665	929		877	1,775
Casco,	354	35	3,660	925		2,590	2,595
China,	1.836	333	9,971	4,950	196	8,730	8,131
Clay,	1,001	149	14,400	2,371	145	5,415	3,627
Columbus,	348	143	8,760	2,738		3,715	6,248
Cottreville,	515	75	8,560	1,205		4,090	3,790
Clyde,	350	108	8,718	834	150	1,895	11,090
Ira,	263	132	5,839	1,420	191	1,792	2,240
Lyn.*							
Pt. Huron, (vil.)							
Pt. Huron, (t'n)	76	88	6,993	405	10	1,540	2,445
Riley,	246	71	2,505	790		2,355	3,700
St. Clair,	556	82	10,037	328		2,768	3,136
Wales,	64	31	944	107		695	665
	6,477	1,562	$95,346	20,285	942	42,942	60,673

* Not returned.

ST. CLAIR COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
	547	2,86	1,204		5,340	850	508		700
	101	525			1,400	100	260		
	150	1,375	166		5,320	200	594		
	107	956	1,020		4,850	350	256		150
282	1,306	4.783	6,096	460	32,775	5,450	1,886		
150	666	2,945	2,233	625	22,250	800	859		
320	286	83.)	1,005		11,300		494		150
210	562	1,448	1,596	795	10,920		576		
	273	3,930	916		10,030	750	753		
45	135	1,582	709	120	8,300	250	296		
	56	1,450	278	110	8,300	740	547		
	393	328	698		1,710	350	192		
100	365	1,421	1,710	53	11.520	100	724		
	27	115			1,700		123		100
1107	**4,974**	**24,563**	**17,631**	**2163**	**135715**	**9,940**	**8,068**		**1,100**

ST. CLAIR COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam		Bbls. flour made.	Value of.		Water.	Steam.	
Berlin,											
Brockway,								1	1		$3000
Burchville								4	3	1	16000
Casco,	137										
China,	256							2		2	5500
Clay,	202							3		3	14500
Columbus,	245										
Cottreville	216							2		2	8000
Clyde,	75							5	5		38000
Ira,											
Lyn *								1		1	5000
Pt. H. [vil] " (t'n,)	25							7	1	6	85000
Riley,		1	1		7000	2000	8000				
St. Clair,		1		1	1000	35000	17500	7	1	6	54000
Wales,											
	1156	2	1	1	$8,000	37,000	$25500	32	11	21	229000

* Not returned.

ST. CLAIR COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
						$45,935	$171,255
500,000	$3500	$3,500	19		$7,400	56,123	135,950
1,700,000	13000	16,500	23		15,900	40,420	70,850
						31,264	50,065
*	10400	5,500	11		10,400	60,907	201,325
4,300,000	34400	14,500	32		34,400	63,349	143,641
						32,215	55,990
3 000,000	23000	9,000	28		25,400	90,865	153,850
3,300,000	23000	44,000	52		72,500	72,808	191,443
						18,722	51,059
1,000,000	7000	5,000	5		7,000	†	†
12,600,000	112500	130,600	217		141,900	141,061	386,353
		7,000	2		8 000	29,585	559,975
8,050,000	90000	88,525	154	6	155,500	145,623	271,595
						22,132	1[illegible]3,800
34,450,000	316,800	324,125	543	6	478,400	$851,009	$2,537,151

* Reported with township of Berlin.

ST. JOSEPH COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Burr Oak,	119		120	658					$138,945
Colon,	149		151	847	1				183,385
Constantine,	281		281	1494	9	1			370,720
Fawn River,	90		90	473	6				96,165
Fabius,	91		92	504					65,210
Florence,	142		142	732			1		217,370
Flowerfield,	103		104	563					88,875
Leonidas,	148		151	858					137,095
Lockport,	210		210	1143	2	1			275,115
Mendon,	165		165	860					145,200
Mottville,	122		122	610				1	154,854
Nottawa,	192		193	1165	2			1	290,188
Park,	136		137	823					149,572
Sherman,	68		68	354	2				58,010
Sturgis,	137		139	839					227,888
White Pigeon,	150		151	794	1				198,505
	2303		2,316	12,717	23	2	1	2	$2,797,097

TUSCOLA COUNTY.

Tuscola,	65		65	291				1	65,575

ST. JOSEPH COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
105	5,814	5,969	$140,120	$7,052	159		301	136	386
107	7,284	6,201	105,720	7,680	155		266	160	333
100	7,122	8,670	192,300	11,710	265		281	116	339
54	3,581	7,108	85,200	4,832	115		149	100	352
65	3,680	5,320	538,080	4,895	105		158	88	228
117	9,374	8,698	123,535	11,5[illegible]6	274		371	104	463
63	2,849	5,507	81,460	4,850	133		162	76	141
103	5,828	6,136	116,450	6,155	149		245	131	273
105	8,628	7,741	203,350	10,483	234	1	287	120	66
108	6,232	5,934	125,780	8,319	180		276	113	286
65	5,666	4,130	139,594	10,295	193		196	50	262
129	8,980	9,445	246,993	13,001	305		397	115	533
36	2,870	2,983	59,845	3,405	84		91	58	82
59	3,311	4,945	72,680	4,642	98		153	63	177
65	6,873	5,940	163,370	8,284	191		244	71	253
73	6,174	5,303	131,890	8,581	175		209	98	311
1354	94,266	99,930	2,526,367	125710	2815	1	3786	1599	4,485

TUSCOLA COUNTY—*Continued.*

13	390	4,520	$29,800	$747	7		29	29	31

ST. JOSEPH COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats bushels of.
Burr Oak,	1.143	639	$22.196	12,899	811	26,163	7,668
Colon,	2.236	729	22,244	20,292	146	23,260	6,665
Constantine,	1,350	877	25,525	16.197	125	33,890	8,240
Fawn River,	982	1,000	18,758	7,298	415	26,170	4,870
Fabius,	964	431	14,312	9,957	35	10,240	2,890
Florence,	1,423	946	28 490	21,472	200	38,675	13,430
Flowerfield,	1,024	457	15.058	9 646	6	16,556	3,220
Leonidas,	1,345	642	19,370	15,830	495	21.335	5,232
Lockport,	1,500	722	26.179	24.886	353	27,040	4,972
Mendon,	1,211	537	20 595	20 720	157	21,030	6,129
Mottville,	1.244	606	19.559	15,56[illegible]	142	28,070	7,010
Nottawa,	2.4[illegible]3	956	23,163	27,855	655	33,520	11,498
Park,	501	234	9.197	7.933	7	8,280	2,299
Sherman,	1,355	300	12,658	7.902	230	16,395	5,210
Sturgis,	2,404	640	20,792	17,620	160	42,604	13,523
White Pigeon,	1,140	690	20,022	20,430	564	31,410	8,455
	22305	10406	318,118	256505	4501	404638	111,311

TUSCOLA COUNTY—*Continued.*

Tuscola,	113	53	$1,986	470	80	1,076	315

ST. JOSEPH COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
550	928	7918	3064	$85	17,203	3890	1239	46	
50	1667	8565	5896	340	17,540	3392	1136	74	100
281	826	6520	8271	646	19,035	3435	894	72	700
131	367	4770	2757	180	10,570	600	415	22	
120	324	3906	2693	145	10,195		547	85	350
106	481	9053	4245	252	26,234	1350	1014	42	300
370	526	3160	2944		11,615	400	621	49	310
28	633	6620	3824	157	15,211	1030	673	16	15235
453	2063	8177	4357	90	19,500	655	603	71	
124	864	7406	3581		20,650	3600	804	24	
670	605	4123	3519	502	16,303	885	716	142	
6	552	9395	7298	567	25,036	2373	1506	46	1400
411	3487	8202	4780		21,090	950	590	61	
90	779	4132	2053		8,840	1360	473		
	698	4525	5875	390	16,641	1456	768		
	615	5032	3027	570	14,850	1341	720	8	
3390	16415	101504	68,184	3924	270513	26717	12719	758	18,315

TUSCOLA COUNTY—*Continued.*

	20	1,040	317		1170	150	77		3260

ST. JOSEPH COUNTY—*Continued.*

TOWN'S.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bls. flour made.	Value of.		Water.	Steam.	
Burr Oak,	629										
Colon,	1052	1	1		$9,000	6666	$19875	2	2		†
Constant'e	711	3	3		35.500	14707	60,855	5	5		†
Fawn Riv.,	257	2	2		*24000	2600	10,400				
Fabius,	611							3	2	1	$7500
Florence,	578										
Flower'fld	448	1	1		8,000	3319	12,147	2	2		1750
Leonidas,	475	1	1		4,000	2500	8,250	5	5		9400
Lockport,	723	2	2		32,000	14000	59,500				
Mendon,	880							1	1		3300
Mottville,	319										
Nottawa,	973										
Park,	805							1	1		1500
Sherman,	256										
Sturges,	432	1		1	*13000	7000	28,000				
W. Pigeon	416	1	1		12,000	1500	6,000	1	1		2300
	9,565	12	11	1	142500	52292	205027	20	19	1	$25750

TUSCOLA COUNTY—*Continued.*

Tuscola,	142	1	1		$1500	†	$2000	3	3		$17000

*Including Distillery.
†Not stated.

ST. JOSEPH COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invested in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
						$52,294	$104,588
350,000	$2,100	$12,000	12		$31,075	61,040	122,080
1,340,000	9,390	61,100	63		115,024	106,085	394,818
		27,525	20		36,200	43,320	118,119
1,650,000	11,400	7,650	13		12,200	42,257	84,514
		2,140	28		12,850	65,287	*
380,000	2,450	18,050	14		30,717	46 451	92,902
1,070,000	6,855	16,350	16		20,330	50,180	100,364
		40,500	29		76,850	94,041	188,082
300,000	1,800	5,350	7		6,400	56,456	112,912
		700	2		1,400	56,308	193,953
		22,200	31	8	31,950	103,331	206,662
200,000	1,500	1,500	1		1,500	55,789	111,578
						35,637	71,274
		28,180	32		54,824	66,324	252,679
300,000	2,200	15,800	10		10,162	69,710	225,300
5,590,000	37,695	$259,045	278	8	441,482	1,004,510	2,379,825

TUSCOLA COUNTY—*Continued.*

1,055,000	$8,600	$20,500	29		$15,600	‡$33,502	‡$100,506

* Not reported.
‡Aggregate of Tuscola and Huron counties, returned together.

VAN BUREN COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Almena,	68		69	420	2				$59,595
Antwerp,	40		43	614			1		115,889
Arlington,	5		50	240					24,825
Bloomingdale,	28		28	160					9 150
Columbia,	48		51	265					34,905
Decatur,	68		69	386					62,310
H milton,	63		65	370					66 250
Hartford,	58		58	296					37 560
Keeler,	92		93	486					78 100
Lawrence,	92		94	510					88 805
La Fayette,	213		218	1,145					183,345
Pine Grove,*	12		12	62					4,920
Porter,	81		83	444					68,050
South Haven,	38		38	220					18,345
Waverly,	34		35	186					16,170
	985		1,006	5,804	2		1		$868,219

*Agricultural products not returned.

VAN BUREN COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
31	2,051	2,497	$38,100	$4,122	51		82	41	117
68	4,330	3,781	93,555	7,439	105		174	98	247
19	492	1,530	13,700	1,315	8		49	47	63
6	206	254	4,500	667	8		25		
16	562	1,360	17,100	1,450	24		45	24	63
18	886	1,722	30,300	1,688	30		52	17	85
38	2,077	3,049	49,005	3,157	45		92	79	138
31	1 098	2,522	26,800	2,322	28		75	46	134
52	2 531	4,737	49,200	4,107	59		124	110	157
41	1,130	3,498	38,680	2,990	33		98	70	129
84	2,751	4,758	71,785	5,831	72		168	98	162
52	2,046	3,917	54,550	3,748	62		114	74	156
17	529	1,609	13,800	1,152	8		48	30	67
15	324	908	9,540	983	17		26	16	44
488	21,013	36,142	$510,615	$41001	550		1172	750	1,562

VAN BUREN COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush's.	Oats, bushels of.
Almena,	534	218	$7,259	5,870	593	10,790	2,087
Antwerp,	886	437	16,037	13,857	467	29,455	2,570
Arlington,	174	167	3,339	1,335		3,750	1,475
Bloomingdale,	32	47	1,212	865		975	260
Columbia,	118	105	3,984	1,146		3,240	985
Decatur,	343	191	4,647	4,653		7,600	3,675
Hamilton,	958	348	9,639	5,079		11,285	4,890
Hartford,	418	247	6,440	5,301		7,215	1,831
Keeler,	616	361	11,349	10 359	36	16,195	4,869
Lawrence,	615	274	7,647	5,028		7,815	2,620
La Fayette,	754	425	12,915	11,910	340	17,805	3,136
Pinegrove,*							
Porter,	560	302	9,666	6,984		11,420	4,070
South Haven,	169	111	3,194	1,438		2,935	1,605
Waverly,	83	84	2,482	1,290		2,300	645
	6,260	3,317	$99,810	75,115	1,436	132780	34,718

*Agricultural products not reported.

VAN BUREN COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
325	175	4,330	1,318	$123	6,312	4,370	288		880
140	437	10,780	2,473	578	10,011	1,490	529	1	3,450
	127	1,605	389	175	2,910		93		6,050
10		625	56		1,600		31		880
	128	2,375	332	225	3,500	880	175		4,786
50	72	1,620	972	165	3,220	300	85		830
10	657	4,800	2,179	285	5,745	150	331		500
40	111	2,909	1,105	265	4,890	400	232		12,925
254	40	4,176	1,569	152	8,075	845	373		1,148
	408	3,370	1,505	292	6,640	230	314		8,690
20	90	6,732	1,519	280	16,556	800	622		6,086
120	238	3,768	1,725	192	8,745	400	301		7,650
		1,287	583	208	3,150	120	107		7 180
		1,664	269		2,350	100	86		2,820
969	2,483	50,041	15,994	2,940	83,704	10,085	3,567	1	63,875

VAN BUREN COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
Almena,	$486							2	2		$2,500
Antwerp,	878										
Arlington,	302										
B'mi'gd'le	43										
Columbia,	150							1	1		1,500
Decatur,	366							1	1		3,000
Hamilton,	232							1	1		1,500
Hartford,	646										
Keeler,	581										
Lawrence,	712							3	3		3,500
La Faye'e	1,265	1	1		10,000	3,000	$12000	3	2	1	6,500
P. G've,*								1		1	2,000
Porter,	1,291										
S. Haven,	220										
Waverly,	183										
	$7355	1	1		$10000	3,000	$12000	12	10	2	$20,500

*Agricultural products not reported.

VAN BUREN COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By Assistant Marshals.
800,000	$5,000	$2,500	8		$5,000	$29,444	$44,166
						43.254	64,881
						27,067	40 590
						20,124	30,180
200,000	1,200	5.500	17		15,200	41,590	62,400
400,000	2,800	3 000	6		2,800	29,120	43,080
400,000	2,500	1,500	4		2,500	27,403	41,114
						27,435	41,115
						31,710	57,560
1,000,000	4,400	3 500	7		4,400	37,444	56,166
800,000	4,100	25 500	28		30,400	70.858	106,287
1,000,000	7,000	2,000	15		7,000	16 743	25,119
						29,790	44.685
						37.313	55.969
						24 525	36,787
4,600,000	$27,000	$43,500	85		$67,300	$493,820	$750,099

WASHTENAW COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of Inhabitants.					Value of real estate owned
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Ann Arbor,	891		891	4870	78	4	2		$1,262,605
Augusta,	155		155	808	24				140,205
Bridgewater,	195		195	1148					262,590
Dexter,	132		132	‡1435					219,030
Freedom,	222		222	1214					193,275
Lyndon,	154		154	901				1	127,748
Lodi,	218		218	1234	8	1	1		345,075
Lima,	163		163	912			1		341,700
Manchester,	232		232	1274	7				237,025
Northfield,	177		177	1116					287,300
Pittsfield,	211		211	1232			3	5	439,795
Saline,	293		293	1631			1		411,272
Salem,	222		222	1343					355,060
Scio,	*309		*309	1195			2		402,790
Sharon,	146		146	869					292,275
Superior,	205		205	1127			2		345,945
Sylvan,	167		167	924			1		198,430
Webster,	†176		†176	924					260,430
York,	246		246	1360					348,880
Ypsilanti,	566		566	3052		1	4	1	773,305
	5,080		5,080	28,569	117	6	17	7	$7,244,735

* 110 belong in the village of Dexter.
† 18 " " "
‡ Includes those in " "

WASHTENAW COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
129	8,395	8,008	$266,900	$4,710	313		375	186	465
67	3,020	4,405	106,975	5,328	142		234	68	279
138	9,461	7,407	246,110	12,028	275		422	250	482
89	6,999	8,260	89,940	7,442	169		241	192	327
148	8,664	7,605	182,550	8,317	228		374	277	437
123	6,882	9,513	120,880	7,930	159		320	286	446
135	11,317	7,691	320,960	13,833	338		449	240	461
123	9,291	9,226	254,240	11,615	321		389	182	492
87	6,620	6,251	153,300	5,943	161		266	120	267
162	10,713	11,600	292,700	14,475	365		517	308	719
139	10,775	7,848	422.115	18,344	281		480	214	450
151	11,598	7,817	320,286	12,826	346		467	290	544
164	9,291	10,343	294,925	20,657	509		500	194	828
116	9,103	7,088	239.330	13,313	298		362	248	438
100	10,022	6,986	275,160	9,189	218		310	208	384
155	10,908	9,992	368,806	18,079	494		539	232	907
122	7,860	7,838	151,720	11,660	213		326	236	362
123	8,274	7,495	209,690	12,565	214		355	277	395
143	10,009	7,587	286,955	14,566	349		449	157	576
132	10,512	6,587	375,800	16,537	342		542	304	445
2546	179,714	159,547	4,979,342	239,357	5735		7917	4469	9,699

WASHTENAW COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls	Oats, bushels of.
Ann Arbor,	5412	986	$35,157	21,486	269	17,295	8043
Augusta,	1221	334	16,260	7,166	248	11,040	4860
Bridgewater,	3853	727	37,302	27,554	657	19,456	9902
Dexter,	4499	559	25,164	28,097	176	11,172	3416
Freedom,	2351	723	33,099	26 082	595	12,157	10066
Lyndon,	2408	905	23,871	23 706	232	8,758	5064
Lodi,	5339	656	*15,864	26,659	110	22,810	14911
Lima,	5189	885	31,387	31,903	20	11,900	11089
Manchester,	4788	657	23,178	16 969	497	14,418	8613
Northfield,	4879	1423	44,534	25,505	758	19,119	9870
Pittsfield,	6957	584	46,285	42,192	160	26,850	12415
Saline,	4096	903	†	30,782	150	24,190	12324
Salem,	4861	1441	50,095	18,663	210	34,121	18393
Scio,	4230	933	31,169	26,049	203	11,050	11203
Sharon,	5002	566	31,833	36,838	175	27,630	14265
Superior,	9684	1419	65,071	26,195		35,139	18090
Sylvan,	3507	721	29,683	23,920		12 225	8345
Webster,	4790	713	32,837	27,748	132	14,380	8045
York,	4374	796	41,244	26,344	839	16,490	10439
Ypsilanti,	5524	657	45,802	28,992	959	29,765	14217
	92964	16588	662,835	522728	6370	379965	23,570

* Stock owned by 41 farmers; that owned by 94 others is not stated.
†Not stated

WASHTENAW COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
107	3,336	5,327	12,832	772	25,205	4,906	2,130	115	200
193	834	4,950	3,878	687	26,769	5,905	1,128	73	2,070
110	2,453	7,775	11,576	232	28,790	4,620	1,823	238	30
10	1,020	7,103	11,114	2,153	16,140	1,963	157	42	
76	4,080	4,849	7,161	766	23,590	615	1,878	53	1,010
100	2,202	8,622	6,199	73	20,730	695	1,454	49	200
182	879	5,220	18,070	1,327	44,045	10,069	2,463	82	5,590
183	1,965	6,568	13,297	110	26,520	1,940	1,572	212	
255	1,904	4,911	11,524	231	19,540	2,563	1,403	84	
110	5,261	4,605	9,909	654	34,575	2,680	2,787	186	2,076
168	1,318	5,201	21,859	550	40,470	8,995	3,049	611	590
235	1,557	6,226	15,554	899	32,165	8,395	2,174	253	4,905
503	4,254	4,828	11,016	1,462	39,166	13,508	2,130	76	21,789
302	1,327	7,727	9,963	88	24,104	2,068	1,543	222	
795	774	6,077	2,799	456	22,745	3,070	1,316	227	852
612	2,203	4,719	23,177	1,984	49,084	4,045	2,917	108	12,810
30	2,010	8,181	8,588	329	21,680	1,600	1,822	56	
1583	2,628	7,801	10,795	87	22,985	1,760	2,033	67	
130	1,990	7,241	12,336	1,722	31,498	34,665	2,.71	407	8,261
516	1,497	12,116	13,998	432	40,163	3,500	2,719	672	3,195
6200	43492	130047	235845	15008	589964	117562	38669	3824	63,578

WASHTENAW COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
A. Arbor,	$449	4	3	1	$31000	13,750	$55000	3	3		$2,000
Augusta,	697							4	3	1	14,400
B'gwater,	1,598										
Dexter,	591	2	2		29,000	18,000	65,000				
Freedom,	1.043										
Lyndon,	1.082	1	1		500	*	200	1	1		1,000
Lodi,	1,343							1		1	2,500
Lima,	1,054										
Manch'st'r	1,040	1	1		10,000	7,300	27,500				
Northfi'ld,	1,505										
Pittsfield,	1,144										
Saline,	1,205	3	3		19,000	11,600	46,800	4	3	1	7,100
Salem,	2,846							3	1	2	4,000
Scio,	421	4	4		34,000	34,900	139600	3	3		3,000
Sharon,	995							1	1		1,200
Superior,	1,484	1	1		9,000	1,050	4,000	1	1		n'tsta'd
Sylvan,	1,622										
Webster,	1,778	2	2		20,000	†10000	50,000				
York,	2,260							1	1		1,400
Ypsilanti,	1,136	4	3	1	66,000	41,200	165000	2	2		8,000
	25293	22	20	2	218500	137800	553100	24	19	5	44,600

*Custom work.
†By one; and one not stated.

N. B. The aggregate of mills and manufactures in the village of Dexter added to those of Webster.

WASHTENAW COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l and personal estate.	
Annual product.			Hands empl'd				
Feet of Lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By assistant marshals.
520.000	$3,900	$137,600	254	36	282,450	,558,447	$3,411,262
940,000	6,150	14,400	7		6,150	*	*
						*	*
		29,000	7		65,000	75,489	235,687
		300	1		10,000	*	*
140.000	700	1,500	*		900	51,518	68,790
500,000	3,500	2,500	2		3,500	*	*
		300	2		800	86,710	115,613
		15,700	10		89,000	*	*
		600	4		1,220	94,797	126,396
						*	*
595.000	4.250	27,550	15		55.600	*	*
950 000	6,350	5,550	13		9,780	110,486	147,314
480,000	3,840	41,000	24		144,310	*	*
150,000	1,500	1,200	1		1,500	*	*
80,000	560	10,100	6		5,810	123,130	164,173
		100	1		600	64,819	86,092
		51,400	57		78,620	93,865	125,053
140 000	600	2,020	6		3,550	*	*
1,650,000	11,878	134,250	119	3	245,478	*	*
6,145,000	$43,228	$475,070	529	39	1,004268	3,259,261	$4,480,380

* Not stated.

WAYNE COUNTY.

TOWNSHIPS.	Dwelling Houses.		Number of families.	No. of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Brownstown,	176		176	1047					$120,847
Canton,	231		232	1333			2	2	323,845
Detroit City,*	3144	3144	3466	21028	573	7	5	1	2,906,970
Dearborn,	245		252	1385	19	1			259,470
Ecorse,	115		115	653	21			1	46,360
Greenfield,	298		308	1674	12				267,195
Grosse Point,	244		244	1392	12				254,315
Huron,†	85		85	482					49,900
Hamtramck,	274		284	1628	14				392,895
Livonia,	250		250	1375		2	3	3	366,915
Monguagon,	179		179	984	7				142,010
Nankin,	305		306	1617	7	2		3	302,355
Plymouth,	466		466	2431	3	1	1		796,697
Redford,	284		290	1645	3	1		3	340,180
Springwells,	221		221	1263	12		1	1	352,200
Sumpter,‡	89		89	2828	3		1		48,190
Taylor,‡	55		55		4				32,280
Romulus,‡	123		123		3		1	1	75,560
Van Buren,‡	265		265		6	1	1		240,610
	7049	3144	7,406	42,765	699	15	15	15	$7,318,794

* The items between the colums headed "Value of real estate owned" and "Number of flouring mills," opposite to Detroit, all appertain to the ten occupied farms.

† Products of agriculture (and mills, if any) included with those of Brownstown.

‡ The agricultural statistics, &c., of the townships of Sumpter, Taylor, Romulus and Van Buren, reported in the aggregate.

WAYNE COUNTY—*Continued.*

Occupied Farms.				Value of farming implem'ts and machinery.	Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.		Horses.	Asses and mules.	Milch cows.	Working oxen.	Other cattle.
92	4,615	11,041	$142,400	$8,185	373		265	186	561
163	8,685	8,929	314,600	17,878	350		571	196	710
10	221	71	48,200	460	15		22	2	8
112	5,585	6,878	192,630	9,967	268		183	140	368
43	1,330	4,214	48,220	2,575	130		134	47	91
99	4,410	6,098	204,900	8,869	300		401	100	223
106	3,862	10,979	176,100	10,171	413		342	63	313
42	2,062	2,874	113,380	4,235	142		134	15	101
157	10,211	9,326	347,800	17,102	340		549	160	549
36	2,695	4,418	124,090	4,270	126	1	147	78	261
163	6,461	8,446	246,490	14,060	360		436	179	452
183	12,601	8,285	524,275	21,957	322		623	284	632
157	7,829	7,855	273,090	14,140	410		541	160	524
35	1,338	2,106	84,450	3,655	84		127	26	89
234	11,308	15,353	317,950	19,093	581		867	366	1010
1632	83,213	106,873	3,158,575	156617	4214	1	5342	2002	5,892

WAYNE COUNTY—*Continued.*

TOWNSHIPS.	Live Stock, J'e 1, '50.			Produce, during			
	Sheep.	Swine.	Value of live stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls	Oats, bushels of.
Brownstown,	1916	880	$28,035	8501	208	14,700	11361
Canton,	3978	719	46,362	8739	119	40,356	31736
Detroit City,		6	1,065	75		700	840
Dearborn,	1822	676	27,717	3543	20	15,299	15579
Ecorse,	672	305	6.385	1659	119	2.573	5787
Greenfield,	769	603	23.925	2603	108	8.983	15399
Grosse Point,	533	720	18,194	3624	2082	13,243	19456
Huron,							
Hamtramck,	186	261	8.731	941	488	6,955	6642
Livonia,	5949	714	41,184	8078	1760	37,795	23047
Monguagon,	1461	585	15,055	5041		7,315	10363
Nankin,	3290	520	36,871	4740	396	24,002	16740
Plymouth,	5240	796	55,591	36021	825	40,565	17260
Redford,	2938	884	42,700	6324	820	28,929	30828
Springwells,	129	184	5,250	659	152	3,482	3892
Sumpter, Taylor, Romulus, Van Buren,	3551	1569	41,250	15016	273	39,135	35952
	32434	9422	398,315	105567	7370	284032	244882

WAYNE COUNTY—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels.	Potatoes, bushels of.	Wool, pounds of.	Value of Orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bush's.	Maple sugar, lbs.
131	1892	2857	5131	548	20,000	2315	16640	51	410
225	1388	8237	12149	979	39,275	5854	2807	5	11004
		945		70	1.100		102		
398	1475	8117	5246	381	39,669	1400	2231		2704
90	572	1149	1602	100	3,110		585		
1267	228	6434	3119	80	32,137	150	2189		50
2128	1187	9824	1302	779	12,707	222	1725	2	
620	123	5100	472	88	6,463		930		
40	2099	18858	14273	1524	50,910	2899	2597	59	3390
1575	545	404	5360	250	5,459	150	610		
116	2690	7529	9366	1394	49,458	4223	2549	10	7193
225	1015	16398	19616	3512	59,621	11285	3168	119	15015
70	3471	19910	8731	704	54,100	62 0	2114	5	3645
190	279	1141	309	215	4,655	320	686		
14	6716	30374	9146	747	55,215	2385	3424	114	5501
7089	23680	137277	95822	11371	433879	63,549	42357	365	48912

WAYNE COUNTY—*Continued.*

T'SHIPS.	Value of home made manufactures.	Flouring Mills.						Saw Mills.			
		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.	Annual prod'ct.		Number of.	Power used.		Cap'l invest'd in re'l & personal estate in the business.
			Water.	Steam.		Bbls. flour made.	Value of.		Water.	Steam.	
Brownst'n,	574	1	1		$4,000	1200	$6000	3	1	2	$8570
Canton,	1153	1		1	10,000	5000	20000	3		3	6200
Detroit,								4	1	3	159800
Dearborn,	753	2	2		14,000	5222	22388	4	2	2	5000
Ecorse,											
Greenfi'ld,	105							3		3	7000
Gros. P'nt,	408							1		1	3400
Huron,											
Hamtra'k,	96							3		3	102500
Livonia,	3594							1		1	2000
Mongu'gn,		1		1	8,000	3000	13000	2		2	8000
Nankin,	1699	1	1		4,000	2000	8000	5	1	4	13000
Plymouth,	1842	5	5		54,150	29600	117275	5	5		3400
Redford,	2765	1	1		5,000	2640	10560	5	4	1	13000
Springw'ls								1		1	15000
Sum'tr, Taylor, Romu'ls Van B'n	3279	1	1	1	2,000	1600	6400	4	1	3	8800
	16268	13	11	2	101150	50262	203623	44	15	29	355671

WAYNE COUNTY—*Continued.*

Saw Mills.		Aggregate of all kinds of manuf's, mills included.				Estimated value of re'l & pers'l estate.*	
Annual product.			Hands employ'd				
Feet of lumber sawed.	Value of.	Cap'l invest'd in re'l & personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By Assistant Marshals.
1,900,000	$14,700	$12,970	14		$26,440	$117423	$117,423
2,100,000	11,100	16,200	15		31,100	96,712	313,164
11,500,000	138,584	687,085	1194	117	1,369922		
2,740,000	15,940	20.100	33		49,724	100,699	255,970
		3,000	20		2,400	52,778	70,000
2,426,000	11,554	7,100	20		12,304	109,447	265,195
600,000	3,600	6,400	21		6,550	86,903	115,860
8,500,000	87,000	124,730	123		125,500	132,130	165,172
750,000	4,500	2,850	10		7,220	97,173	431,450
2,100,000	168,000	18,500	32		194,200	67,631	100,000
2,740,000	16,190	19,300	27		30,390	87,974	351,995
650,000	4,167	85,870	111		197,807	220,868	883,472
2,525,000	15,150	18,800	27		35,856	105,876	347,770
3,000,000	30,000	32,500	120		58,100	95,999	100,000
1,997,500	17,840	10,800	16		25,810	285,750	285,750
43,528,500	538,325	1,066205	1783	117	2,173323	1657363	3,803,221

* Exclusive of Detroit City.

RECAPITULATION.

COUNTIES.	Dwelling Houses.		Number of families.	Number of inhabitants.					Value of real estate owned.
	Whole number.	Number in cities.		Whole number.	Colored.	Deaf and dumb.	Blind.	Insane.	
Allegan,	896		1,044	5,127	5	4	1	6	$848,285
Barry,	1,040		1,055	5,072	8	2	2	3	740,074
Berrien,	2,127		2,153	11,417	215	4	1	8	2,180,506
Branch,	2,400		2,469	12,472	14			3	2,096,483
Calhoun,	3,681		3,762	19,169	196	5	6	5	4,037,480
Cass,	1,915		1,9[illegible]1	10,906	387	4		5	1,924,[illegible]04
Chippewa,	187		187	898	15				101,930
Clinton,	947		951	5,102	2		1	1	627,705
Eaton,	1,325		1,351	7,058	3	4	1	1	1,051,492
Genesee,	2,253		2,[illegible]67	12,031	14		6	1	2,141,012
Hillsdale,	2,965		3,026	16,159	5	3	2	1	3,159,337
Houghton,	116		116	798					*52,8[illegible]0
Huron,				†207					
Ingham,	1,597		1,603	8,613	18	2	3		1,258,780
Ionia,	1,374		1,393	7,597		1	1	1	985,995
Jackson,	3,543		3,583	19,433	61	10	2	8	4,196,956
Kalamazoo,	2,191		2,210	13,179	97	5		6	2,971,250
Kent,	2,246	489	2,246	12,017	30	2	4	2	2,015,447
Lapeer,	1,287		1,296	7,026	6	2	5	1	1,186,153
Lenawee,	4,911		4,978	26,380	91	11	11	19	5,671,348
Livingston,	2,366		2,370	13,475		4	6	3	2,657,245
Macomb,	2,664		2,711	15,532	27	1	4	7	2,872,310
Mackinac,	581		607	3,597	31				301,094
Marquette,	18		18	136					*4,350
Mason,	12		12	93					19,400
Midland,	10		10	65					4,195
Montcalm,	164		165	891					12[illegible],250
Monroe,	2,536	476	2,556	14,695	54	8	12	4	2,309,448
Newaygo,	92		92	510					51 250
Oakland,	5,557		5,601	31,267	60	6	5	16	7,619,091
Oceana,	58		58	300	19				16,460
Ontonagon,	46		46	389	5				*81,250
Ottawa,	1,128		1,134	5,587	35	1		2	580,890
Saginaw,	483		508	2,609					283,891
Sanilac,	420		420	2,322			1		222,5[illegible]0
Schoolcraft,	5		5	16					*2,0[illegible]0
Shiawassee,	972		972	5,233					836,645
St. Clair,	1,817		1,817	10,411	23	3		1	1,3[illegible]8,638
St. Joseph,	2,303		2,316	12,717	23	2	1	2	2,797,097
Tuscola,	65		65	291				1	65,575
Van Buren,	985		1,006	5,504	2		1		868,219
Washtenaw,	5,080		5,080	28,569	117	6	17	7	7,214,735
Wayne,	7,049	3144	7,406	42,765	699	15	15	15	7,318,794
	71,515	4,109	72,560	397,965	2,265	105	108	129	$74,968,344

*Balance reported with Chippewa.
† Balance reported with Sanilac.

RECAPITULATION—*Continued.*

Occupied Farms.					Live Stock, June 1, 1850.				
Whole number.	Acres improved.	Acres unimproved.	Cash value of.	Value of farming implements and machinery.	Horses.	Asses and Mules.	Milch Cows.	Working Oxen.	Other Cattle.
270	12,419	25,015	$40[illegible],[illegible]60	$23,560	3[illegible]0		762	518	1,107
750	24,752	61,057	622,293	28,439	618		5[illegible]2	451	1,816
634	31,282	57,976	1,049,746	59,486	1,609	2	1,912	847	2,368
1463	64,141	87,8[illegible]6	1,609,370	74,541	1,726	5	3,276	1,867	4,3[illegible]4
1834	119,2[illegible]5	13[illegible],262	*2,984,926	129,007	3,[illegible]25	3	6,3[illegible]6	3,778	6,357
952	59,998	80,520	1,562,701	77,682	2,065		2,617	1,[illegible]46	2,947
48	838	12,2[illegible]2	52,600	4,082	88	7	71	98	53
652	21,825	49,[illegible]27	549,835	31,278	528		1,5[illegible]2	1,125	2,0[illegible]3
747	*27,476	55,76[illegible]	715,352	45,151	712	1	1,8[illegible]8	1,[illegible]88	2,[illegible]63
1476	54,024	91,548	1,595,560	83,814	1,654		3,663	2,[illegible]21	4,574
1411	78,940	85,433	2,060,125	117,682	2,090		3,885	1,953	4,982
10[illegible]4	40,149	80,846	981,125	46,0[illegible]9	815		2,419	1,8[illegible]6	2,464
613	3[illegible],067	46,8[illegible]1	746,740	38,649	711	2	1,[illegible]0	1,266	2,365
2282	14[illegible],320	165,603	3,50[illegible],[illegible]85	155,888	3,457	7	6,191	4,321	6,269
1[illegible]00	73,047	80,133	1,997,320	142,767	2,353		3,034	1,868	4,[illegible]30
8[illegible]5	35,532	72,536	1,004,801	57,388	791		2,163	1,641	2,619
628	34,9[illegible]3	39,543	782,240	49,788	933		1,656	1,[illegible]55	2,344
2471	13[illegible],[illegible]31	136,[illegible]92	4,102,4[illegible]5	201,[illegible]24	4,752	4	7,5[illegible]0	2,79[illegible]	10,321
1653	103,862	119,747	2,287,470	119,375	2,217	8	4,531	3,421	4,767
1317	74,783	86,532	2,222,843	101,502	2,540	2	4,407	1,575	5,241
14	554	1,776	15,[illegible]00	866	22		56	20	58
4	207	1,281	13,575	525	9		10	16	15
26	1,711	3,408	35,400	2,020	49		72	63	66
1284	57,529	81,[illegible]19	1,580,213	117,927	2,835		4,061	2,046	5,110
12	646	699	8,200	725	7		26	26	28
3559	234,428	209,574	6,541,689	385,874	6,507	1	*10,597	6,924	10,608
204	4,914	19,128	181,497	8,961	90		538	287	837
79	2,940	7,891	104,976	5,224	145		289	144	387
88	3,612	4,944	78,850	4,391	78		248	192	272
746	31,203	56,681	734,965	32,939	654		1,701	1,385	2,062
500	37,[illegible]60	50,175	636,283	37,535	821		1,738	821	1,977
1354	94,266	99,920	2,52[illegible],367	125,710	2,815	1	3,786	1,599	4,485
13	390	4,520	29,[illegible]00	747	7		29	29	31
488	21,013	36,142	510,615	41,001	550		1,172	75[illegible]	1,562
2546	179,714	159,547	4,979,[illegible]42	239,357	5,735		7,917	4,469	9,699
1632	83,213	106,873	3,15[illegible],575	156,617	4,214	1	5,312	2,002	5,892
24,879	1,930,354	2,419,529	51,914,614	2,748,311	57,842	44	97,557	56,203	117,043

* True amounts.—Errors occurred in footing by townships.

RECAPITULATION—*Continued.*

COUNTIES.	Live Stock, June 1, 1850.			Produce, during			
	Sheep.	Swine.	Value of Live Stock.	Wheat, bushels of.	Rye, bushels of.	Indian corn, bushels of.	Oats, bushels of.
Allegan,	4,425	1,508	$67,929	25,116	1,631	52,305	16,711
Barry,	8,4[illegible]6	4,312	121.549	79,871	929	111,609	40,442
Berrien,	11,302	7,199	161,800	88,263	144	227.65[illegible]	74,175
Branch,	21,864	6,830	254.504	155.742	1.079	323,270	118,474
Calhoun,	49,663	11,36[illegible]	507,217	390,774	3,565	334,209	164,765
Cass,	17,670	8,39[illegible]	212,262	159,997	126	422,740	122.000
Chippewa,	19	111	15.620			30	1,040
Clinton,	5,085	4,78[illegible]	108,671	54.297	328	64,967	38,960
Eaton,	8,857	4,055	*116.416	50,830	667	69 630	44 290
Genesee,	25,665	6.145	267,064	121,202	1,382	126,497	86,585
Hillsdale,	27,862	7,199	323,80[illegible]	220,164	1,542	247,530	135,487
Houghton,							
Huron,							
Ingham,	11,523	4,062	166,942	81,687	423	95,270	58,414
Ionia,	8,447	3,336	128,030	76,946	2.543	75,945	44,003
Jackson,	51,094	11,590	501,01[illegible]	476,617	5.266	268,725	177,237
Kalamazoo,	37,674	9,113	246,126	227,813	2,605	374,995	98,063
Kent,	8,114	4.843	174,99[illegible]	69,30[illegible]	4.117	93,610	59.822
Lapeer,	16,462	3,435	165,021	84 831	1,999	52,505	52 935
Lenawee,	70,385	12,154	629,21[illegible]	31[illegible],529	3,235	393,546	177,331
Livingston,	32,282	8,740	382,07[illegible]	303,594	15,474	173,197	86,894
Macomb,	35,582	7,593	311,89[illegible]	132,136	2,287	160,306	157,634
Mackinac,		46	3,035				770
Marquette,							
Mason,							
Midland,	37	40	1,294	300		1,650	200
Montcalm,	469	158	6,575	3,781	340	4,570	2.660
Monroe,	19,925	10,984	286,308	114,340	997	199.323	89,835
Newaygo,	3	130	2,275	327		5,2[illegible]0	380
Oakland,	113,804	17,633	920,273	603,789	29,854	479,458	280,538
Oceana,							
Ontonagon,							
Ottawa,	192	1,349	21,848	3,814	262	24,264	3,540
Saginaw,	777	479	21,536	4,420	106	13,935	4,235
Sanilac,	774	389	17,070	7,157	10	5,298	7,531
Schoolcraft,							
Shiawassee,	7,087	3,262	133,739	61,834	650	56,505	32,705
St. Clair,	6,477	1,562	95,346	20,285	942	42,942	60,673
St. Joseph,	22,305	10,406	318,118	256,505	4,501	404 638	111,311
Tuscola,	113	53	1,986	470	80	1,076	315
Van Buren,	6,260	3,317	99,810	75,115	1,436	132.780	34,718
Washtenaw,	92,964	16,588	662,835	522,728	6,370	379,965	*213,570
Wayne,	32,434	9,422	398,315	105,567	7,370	284,032	244,882
	756,382	202,588	7,852,550	4,893,141	102,260	5,704,172	1,843,134

*True amounts.—Errors occurred in footing by townships.

RECAPITULATION—*Continued.*

the year ending June 1st, 1850.

Barley, bushels of.	Buckwheat, bushels of.	Potatoes, bushels of.	Wool, pounds of.	Value of orchard products.	Butter, pounds of.	Cheese, pounds of.	Hay, tons of.	Clover seed, bushels of.	Maple sugar, lbs.
1,006	2,026	43,721	13,154	$2,582	64,060	6,890	3,312	97	91,970
1,572	3,021	51,837	21,959	190	110,966	13,752	6,449	91	94,498
260	3,249	60,215	28.633	6.681	123.346	12.531	6,186	87	51,043
2,280	15,271	113,108	58.325	4,306	257,469	23.809	10.899	189	207,584
12,819	21.778	155 510	126,589	5,427	359,675	42,578	18.623	706	39,796
1,475	4,396	64.625	48,343	3,355	185,215	22,700	3,853	300	107,500
		8,200					366		2,000
161	8,126	41.000	14,638	337	135.613	5,936	5,013	32	125 024
1,160	6,692	48,721	23,969	1.211	150.174	13,367	7,202	31	210.282
1,527	14,934	50,407	72,271	2,805	295,742	30.224	16,551	360	162,266
658	20,899	108,683	82,620	5,952	340,121	67.318	12,478	605	170,161
277	12,981	59,790	28.229	343	144,080	13.243	8,620	238	166,204
1,057	7,312	57,304	23,823	866	117,769	20,386	5,596	77	118,537
2,980	26,478	160,115	132,263	2,324	356,300	36 642	27,355	656	400
5,006	5.834	101,812	94,328	3,972	191,027	40,461	10,718	369	79,770
2,817	12,044	74,129	22,005	830	181,215	13.740	8,141	148	91,447
456	7,848	42,638	33,269	1,391	125,983	19,713	6,849	96	60 533
2,096	38,603	138,042	178,399	6,430	515 437	132 940	35,383	2,571	152,916
1,496	44,157	100,312	89,686	2,145	308,245	32,105	24,602	1,112	15,840
2,210	21,003	59,910	101,057	9,551	256,818	52.442	17,717	414	67.779
	20	4,455		300	1,200		96		1,100
		750	128		600		50		
	1,075	3,590	942		5,580		199		
3,229	20,774	78,122	57,098	8,341	260,469	42,494	19,000	281	26,168
	883	2,380			1,825		162		
7,065	78,004	212,508	299,590	24,472	877,856	221,152	52,134	3,128	63,097
55	553	9,308	1,166	219	30,935	2,100	1,507	1	42,365
180	999	6 635	2.406	45	14,575	1,720	1,084		10,475
35	503	4,246	2,177		18,415		1,332		7,255
259	6,284	26,475	21,738	1 041	110,823	16.400	7,136	110	61,157
1,107	4,974	24,563	17,631	2,163	135.715	9,940	8,068		1.100
3,390	16,415	101,504	68,184	3,924	270,513	26,717	12,719	758	18,395
	20	1 040	317		1,170	150	77		3,260
969	2,483	50,041	15,994	2,940	83.704	10,085	3.567	1	63,875
6,200	43,492	130,047	235 845	15,008	589,964	117,562	36,669	3,824	63,578
7,089	23,680	137,277	95 822	11,371	433,879	63,549	42,357	365	48,912
70,801	476,811	2,333,020	2,007,598	130,522	7,056,478	1,112,646	424,070	16,647	2,426,087

RECAPITULATION.—*Continued.*

COUNTIES	Value of home made manufactures.	Flouring Mills. Number of	Power used. Water.	Power used. Steam.	Capital invested in real and personal estate in the business.	Annual product. Barrels flour made.	Annual product. Value of	Saw Mills. Number.	Power used. Water.	Power used. Steam.	Capital invested in real and personal estate in the business.
Allegan,	$4,767	3	3		$17,000	4,600	$19,600	12	19	3	$64,600
Barry,	5,565	2	2		6,000	4,200	16,200	17	14	3	22,875
Berrien,	5,222	5	5		52,000	37,000	141,000	24	22	2	43,260
Branch,	14,313	5	4	1	47,300	33,800	102,[illegible]80	21	17	4	45,700
Calhoun,	*6 941										
Cass,	7,467	5	5		21,000	8,700	26,400	11	10	1	13,800
Chippewa,								3	3		6,200
Clinton,	7,761	2	2		7,000	7,000	33,000	6	6		10,000
Eaton,	7,448	4	4		14,000	15,280	39,500	18	16	2	25,200
Genesee,	9,019	7	7		63,200	24,427	91,308	5	5		15,700
Hillsdale,	17,578	8	6	2	79,000	27,580	120,110	24	19	5	32,100
Houghton,											
Huron,											
Ingham,	9 159	4	3	1	27,000	5,260	20,857	12	10	2	14,100
Ionia,	*7,245										
Jackson,	18,603	16	13	3	145,500	82,800	309,600	15	13	2	20,700
Kalamazoo,	5,031	10	8	2	77,500	46,000	175,000	13	11	2	21,000
Kent,	8,981	6	6		34 000	20,544	78,844	18	18		40,000
Lapeer,	10,257	7	6	1	†55 000	10,400	51,000	13	11	2	‡
Lenawee,	23,874	17	15	2	236,300	57,233	325,065	22	14	8	38,000
Livingston,	21,751	11	11		60,500	26,775	168,500	7	4	3	11,500
Macomb,	*35,499										
Mackinac,								15	10	5	152,500
Marquette,											
Mason,								1		1	15,000
Midland,											
Montcalm,	253							6	6		27,000
Monroe,	9,577	2	2		86,500	20,075	93,318	11	8	3	27,300
Newaygo,	20							3	3		23,700
Oakland,	33,595	27	27		201,500	60,066	225,372	10	6	2	13,000
Oceana,								4	2	2	26,600
Ontonagon,											
Ottawa,	1,256							24	11	13	144,030
Saginaw,	418							8	3	5	72,100
Sanilac,	893	1	1		2,000	800	4,000	10	7	3	58,900
Schoolcraft,											
Shiawassee,	8,927	5	5		31,000	11,700	36,400	7	6	1	10,500
St. Clair,	1,176	2	1	1	8,000	37,000	25,500	32	11	21	229,000
St. Joseph,	9,565	12	11	1	142,500	52,292	205,027	20	19	1	25,750
Tuscola,	142	1	1		1,500	not stat'd	2,000	3	3		17,000
Van Buren,	7,355	1	1		10,000	3,000	12,000	12	10	2	20,500
Washtenaw	25,293	22	20	2	218,500	137,80	553 100	24	19	5	44,600
Wayne,	16,218	13	11	2	101,100	5[illegible],262	203,623	44	15	31	35[illegible],671
	341,239	198	180	18	1,746,050	784,684	3,031,976	485	351	134	1,688,185

* The balance of the county imperfectly reported.
† Invested in flour and saw mills.
‡ Merged with flour mills.

RECAPITULATION.—*Continued.*

Saw Mills.		Aggregate of all kinds of manufactures, mills included.				Estimated value of real and personal estate.	
Annual product.			Hands employed.				
Ft. of lumber sawed	Value of.	Capital invested in real and personal estate in the business.	Males.	Females.	Value of annual products.	By assessors.	By Assistant Marshals
12,895,000	$76,700	$113,700	129	2	$155,780	$674 3.8	$1,348,646
5,62 ,000	29,300	32,075	63		65,200	369,790	4 2,7 6
7,7 0, 00	5 ,000	144,760	187½		325,565	832 454	2,4 ,362
6,220,000	39,265	141,550	140		239,095	750,781	1,989 296
						1,582 485	3,878,602
2,332,000	12,900	41,100	43		49,725	826,186	826 486
8 0,000	8,500	674,960	822		395,4 0	150,312	15 3.2
1,5 0,000	9,010	21,175	25½	2	52,100	529 510	529 510
3,6 0,000	21,820	5 ,150	83		123,678	570 979	1,100,000
5,200,000	38,725	104,525	132	1½	181,148	744,577	Not reported.
6,335,000	40,495	122,220	142		188,399	650,000	875,000
						Return'd with	Tuscola.
3,610,000	22,660	51,450	52		62,388	688,006	2,031,351
2,480,000	16.960	250,475	361	20	524 422	1,449,298	4,037,602
5,200,000	35,465	183,200	189	39	355,714	777,9 6	1 0 6 482
11,425, 00	55,475	149,350	245		269,141	800,6 9	1,007,537
5,400,000	35,100	78,6 0	1 6		1 6,195	Not stated.	Not stated.
7,740,000	38,950	473,850	529	37	784,836	2 277.181	2,884,723
3,227,000	21,430	90,850	86½		1 0,240	755 917	1,133,725
						830 465	2,491,395
20,250,000	109,550	176,381	422		206,481	169,279	169,279
3,000,000	16,500	16,800	45		22 200		
6,000,000	26,000	27,000	80		29,100	Not stated.	Not stated.
4,820 000	32,820	146,100	155	1	201,440	1,031,701	1,031,701
6,500.000	31,5 0	27,850	109		48,662		
3.080,000	22,780	250,555	286	30	718 056	2,280,644	5,837,052
6,100,000	32,000	28,500	83		37,700		
49,220,000	307,480	153,540	323		337,548	435,856	671.178
6,075,000	54,850	75,665	113		65,150	318,037	397,546
6,725,000	53,775	66,000	99		72,795	130,638	861,276
1,500,000	9,990	71,075	75		110,474	353,954	951,918
34,450,000	316,800	324,123	543	6	478,490	851, 09	2,537,151
5,360,000	37,695	259,045	278	8	441,452	1,004 510	2,379,835
1,035,000	8,600	20,500	29		15 600	33 502	100,506
4,000,00	27,000	43,500	85		67,300	493,820	750,000
6,115, 00	43,228	475 070	529½	39	1,004,268	3,259, 61	4,480,380
49,528,500	538,325	1,063,205	1783½	117	2,173,323	1,657,265	3,803,221
301,157,500	$2,221,798	5,965,551	8383½	302½	$10,111,488	$27,280,518	$52,781,977

MINERAL STATISTICS.

COUNTIES.	Number companies.	Hands employed.	Capital invested.	Products.		Value of products.
				Kinds.	Tons raised.	
Branch,	1	25	$15,000	Iron ore.	2,700	$15,000
Kent,	1	7	7,900	Plaster.	1,500	6,000
Kalamazoo,	1	10	14,000	Iron ore.	1,890	16,000
Counties of the U. Peninsula,	24	706	614,360	Native copper.	1,507	386,960

STATISTICS

OF

MICHIGAN IN 1840,

COMPILED FROM THE

CENSUS OF THE UNITED STATES.

COMPILED FROM UNITED STATES CENSUS.

COUNTIES.	Whole No. of inhabitants.	Live Stock, June 1, 1840.			
		Horses and Mules.	Neat Cattle.	Sheep.	Swine.
Allegan,	1,783	132	1,511	107	2,266
Barry,	1,078	117	991	86	1,307
Berrien,	5,011	941	4,934	2,407	10,067
Branch,	5,715	714	5,211	744	13,224
Calhoun,	10,599	1,567	9,557	3,057	18,308
Cass,	5,710	1,496	7,179	5,524	11,411
Chippewa,	534	21	83	14	48
Clinton,	1,614	112	1,621	294	2,560
Eaton,	2,379	90	2,102	103	3,188
Genesee,	4,268	418	3,468	1 007	6,540
Hillsdale,	7.240	755	6,926	1,804	10 630
Ingham,	2,498	112	2,516	172	4,358
Ionia,	1,923	200	1,866	270	3,202
Jackson,	13,130	1,533	12.565	3.920	21,674
Kalamazoo,	7,380	1,559	7,061	3,694	13,665
Kent,	2,587	238	1,271	222	2,460
Lapeer,	4,265	329	3,813	1,197	6,207
Lenawee,	17,889	1,970	14,917	6,034	22,973
Livingston,	7,430	855	7,931	1,903	10,952
Macomb,	9,716	1,482	7,193	8,959	8,969
Mackinac,	923	47	96	6	65
Monroe,	9,922	1.688	8,364	3,010	9,281
Oakland,	23,646	3,561	20,651	19,656	39,213
Ottawa,	208	4	12		13
Oceana,	496	22	269		492
Saginaw,	892	244	1,066		1,462
Shiawassee,	2,103	190	2,143	375	3,808
St. Clair,	4,606	770	3,101	1,075	3,029
St. Joseph,	7,068	1,542	7,865	3,986	13,864
Van Buren,	1,910	240	2,125	538	3,422
Washtenaw,	23,571	3,619	22,208	19,273	30,141
Wayne,	24,173	3,576	14,574	10,181	17,092
	212,267	30,144	185,190	99,618	295,890

COMPILED FROM UNITED STATES CENSUS.

COUNT'S.	Produce, during the year ending					
	Wheat, bushels of.	Rye, bushels of.	Indian corn, bush'ls.	Oats, bushels of.	Barley, bushels of.	Potatoes, bushels of.
Allegan,	13,815	30	14,735	15,424	646	23,792
Barry,	12,884		9,435	13,775	56	13,255
Berrien,	56,685	240	97,603	53,692	2,792	35,535
Branch,	67,317	31	89,085	70,222	4,073	74,243
Calhoun,	176,630	85	140,971	179,177	20,553	132,319
Cass,	95,101	780	177,925	98,833	1,868	58,363
Chippewa,				322		3,065
Clinton,	18,632	80	15,296	11,310	100	17,033
Eaton,	15,896		14,492	11,209	940	22,913
Genesee,	37,397	218	17,675	26,766	982	41,442
Hillsdale,	80,256	50	82,757	71,741	4,837	75,230
Ingham,	23,127		18,923	10,947	48	24,951
Ionia,	32,382	210	14,784	16,695	1,100	23,500
Jackson,	180,649	771	167,870	190,087	11,898	147,068
Kalamazoo,	161,168	500	125,023	157,866	5,979	71,355
Kent,	18,750	170	13,320	17,320	440	16,700
Lapeer,	35,472	90	19,801	26,009	3,922	36,351
Lenawee,	167,891	3468	199,538	151,111	5,989	112,434
Livingston,	84,943		82,081	77,945	3,623	93,647
Macomb,	81,064	7387	71,028	69,792	1,344	80,881
Mackinac,			20	614		2,016
Monroe,	42,856	2103	74,407	68,794	2,199	83,016
Oakland,	264,965	6157	254,902	238,005	4,514	329,807
Ottawa,						100
Oceana,	1,226	15	3,950	2,235	47	7,741
Saginaw,	4,125	20	9,837	2,841		16,929
Shiawassee,	19,584		13,772	10,937	206	23,007
St. Clair,	10,836	726	11,443	12,641	956	40,657
St. Joseph,	131,451	2438	148,944	112,125	11,323	66,386
Van Buren,	15,640	120	28,587	16,176	835	20,832
Washtenaw	216,597	2941	220,096	284,181	31,050	210,224
Wayne,	89,769	5576	138,739	94,989	4,975	204,313
	2,157,108	34,236	2,277,039	2,114,051	127,802	2,109,205

COMPILED FROM UNITED STATES CENSUS.

June 1st, 1840.				Grist and Flour'g mills.			
Wool, pounds of.	Value of the produce of the Dairy.	Hay, tons of.	Value of home made manufactures.	Number of.	Blbs. flour made.	Number of Saw Mills.	Capital invested in Mills.
239		657		3	4,700	15	$202,275
265	$497	677				3	1,800
1,959	16,018	2,579	$2,651	10	11,000	27	154,575
1,692	660	451	750	8	3,000	15	93,100
3,676	19,475	6,796	2,780	15	16,300	29	215,200
10,481	11,695	832	8,760	6	8,000	22	55,000
39		89				1	
215		984					
134	4,839	817	160	3		8	16,500
1,302	8,040	1,941	2,958	3	1,050	10	35,500
3,745	5,626	4,064	2,216	3		16	46,500
338	2,099	563	525	1		6	11,900
315	208	466		2		9	31,700
4,255	19,529	12.298	2,931	7	16,500	25	141,850
4,362	9,743	3,929	621	6		22	11,400
566	3,250	970		3	2,000	18	133,000
1,250	1,476	2,634	945	5		14	42.200
7,429	16,950	6,294	5,827	12	6,500	44	246,650
3,945	10,659	9,956	1,247	8	3,600	14	35,700
13,057	620	6,884	6,920	5	7,200	12	74,500
	400	97	570				
3,786	12,654	6.411	4,953	7	2,000	11	44,400
33,859	56,903	18,435	29,031	38	64,650	41	231,900
		10					
		193				12	103,500
	255	1,109		1		6	41,900
583	2,147	502	1,000	1	600	8	42,900
1,909	471	1,716	779	5	80	15	85,000
4,298	9 022	2,426	2,336	7	6,600	11	28,000
900	6.052	1,342	1,079	2		8	34,800
29,427	64,536	20,573	26,541	18	28,800	41	220,0 0
19,349	17,191	14,110	8,375	11	21,100	28	78,450
153,375	301,052	130,805	$113,955	190	202,880	491	$2,460,200